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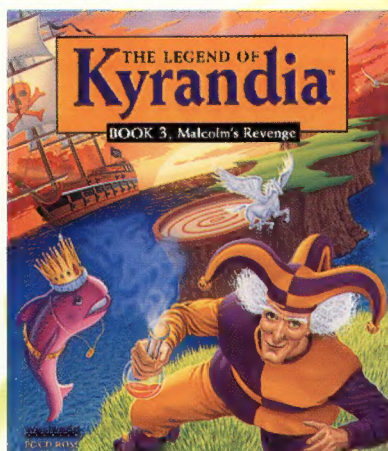


He Who Laughs, Lasts.

IN BOOK THREE OF the *Legend of Kyrandia*, you become Malcolm—the infamous Court Jester of Kyrandia. And you have one last chance to save your rude, misunderstood hide.

GO TO THE ENDS of the Earth armed with swimfins and an inflatable pool toy as you attempt to solve the murders behind the mad monarchy. But be careful, because your country despises you. The Underworld entices you. And pirates double-cross you. It's a fantasy world filled with magic—and the trick is to stay alive.

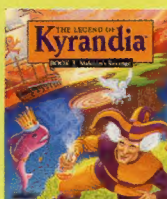
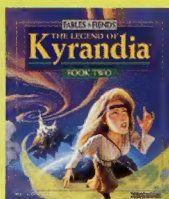
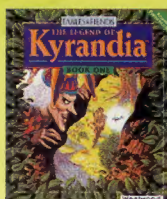
FEATURES



- ❧ CONTROL MALCOLM'S MISCHIEVOUS PERSONALITY and hilarious mouth with Westwood Studios' new interactive *Moodometer*. When conversing with Kyrandians, does it pay to be nice, normal or lie like crazy?
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- ❧ ALTHOUGH MALCOLM'S WARPED, our new *Supersound* is exceptionally clear. Along with lively music, you'll hear real Kyrandian sound effects.



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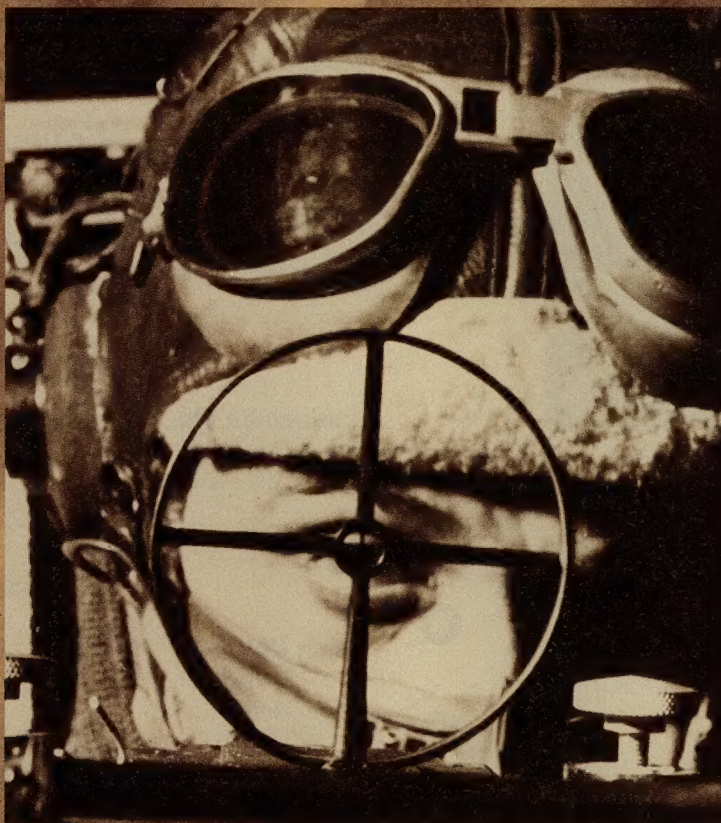
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*He Who Laughs,
Lasts.*

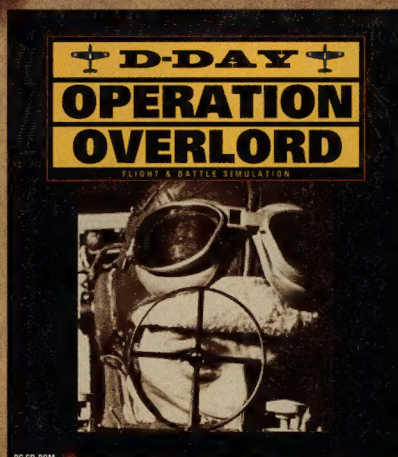


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CD-ROM *Today*



We've put together a dream list to create the ultimate multimedia PC system.

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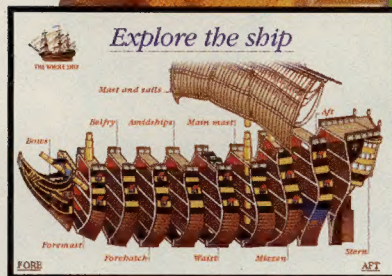
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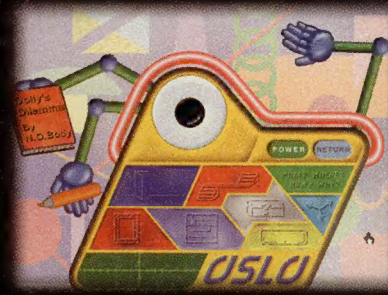
Hit the slopes with Ski Odyssey and Discovering Utah

The Skier's Encyclopedia - a skiing paradise

FUN AND GAMES

Learn to skateboard with Ride, Play Cyberia, Cyber-War, Renegade, Dominus, Lords of Midnight, Out of the Sun, and The Pagemaster

Tools and Gadgets: Adventures with Oslo - makes science fun



SHOW BIZ NOSTALGIA



Relive the moment with People: Twenty Years of Pop Culture, and The Return of Spinal Tap

Saturday Night Live - the best of the best

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Amazing Animation - make your own cartoon

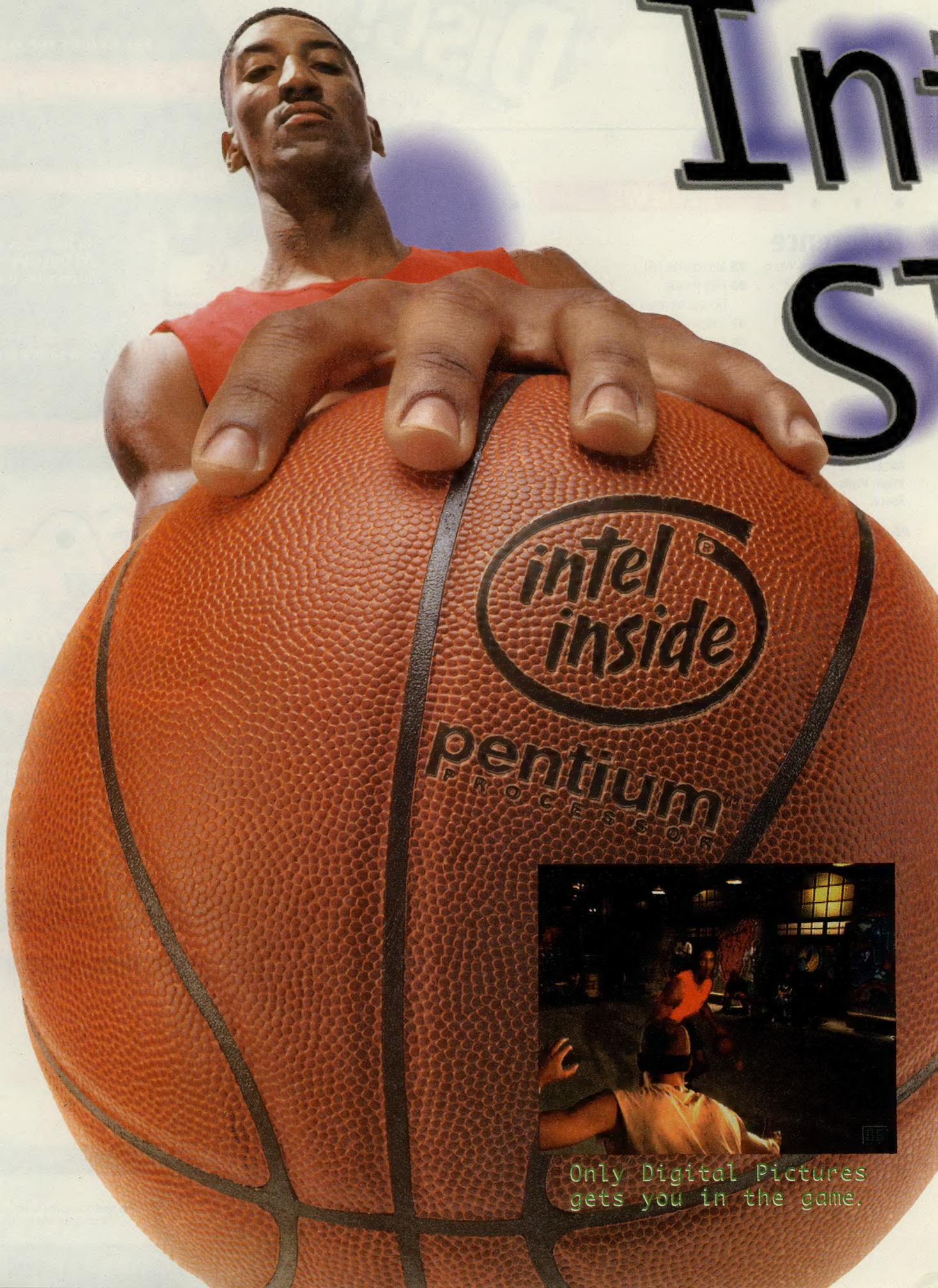


Look for:



On the DISC! This symbol indicates tie-ins between the magazine and the disc.

Intel ST



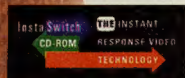
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to put you in the
game.



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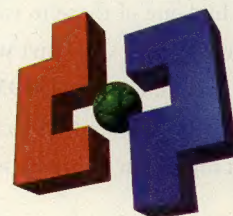
That's Mister
Scottie Pippen
to you.



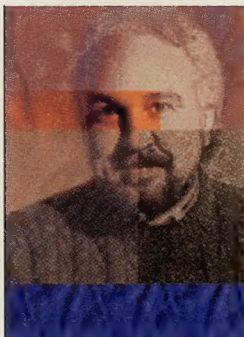
Brittany loves a
winner. And only
a winner.



"How'd you get
up that high?"



When Movie-Makers Make Games,
Everything Else Is Just Cartoons.



There's something a bit different about this issue of *CD-ROM Today*. If you've been with us, even briefly, you're aware that our primary focus is CD-ROM software — we offer a companion CD-ROM with interactive demos, previews, etc.,

and we run more software reviews than any competitor magazine.

This month, we're devoting some prime real estate to hardware. For our cover story, we contacted a host of multimedia developers to ask what kind of hardware they liked and why. From here, we built a finalist list of components for each hardware category, then ran each one through the paces. The results are in Dave Gerding's feature, "Ultimedia: Creating Your Ultimate Dream Machine."

An often neglected part of our multimedia systems is sound. After noticing a vast improvement in multimedia speakers in the past year, we sent contributing editor Steve Anzovin in search of the best ones available. Steve turned his home office into a makeshift listening room and filed his report in "Listen Up!" His recommendations cover systems ranging from \$150-\$600. If you're still using a \$29.95 special to listen to multimedia audio, you don't know what you're missing.

While your ears may be pleased with a new pair of multimedia speakers, your eyes may still be straining at some of the grainy video on your monitor. Multimedia video isn't there yet, but it's getting better — just compare any recent CD-ROM with one published only a year ago. Yet there is still a struggle over who and what will be delivering the smooth, full-motion video that the industry so desperately wants. The battle between hardware and software solutions is still raging. You can go either route, but, as we all know, there will ultimately be one winner. West coast editor Anne Gregor talked to hardware and software companies to get a handle on where we are. You'll find her story, "Multimedia Video: The Next Step," to be a fascinating look at the forces competing for the ultimate video solution.

Another article in this issue addresses a number of reader concerns. Programs on our companion discs frequently require Windows users to install files on their hard drive. Many of you have asked how to "uninstall" these files. Columnist and contributing editor Charles Brannon put five commercial uninstallers through their paces in his report, "Help Me Clean Up This Mess!" If you don't have such a utility program, get one. We've also included ten shareware uninstallers on this month's disc, and you may find one of these to your liking. Be sure to exercise caution, especially if you're a new user — you don't want to delete any critical files.

Look for our upcoming annual ROMmie awards. We'll be presenting these to the winners at January's Consumer Electronics Show in Las Vegas, and you'll find who comes out on top in our February issue.

Lance Elko

Lance Elko, Editorial Director

CD-ROM Today

JANUARY 1995

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 Westgate Drive, Greensboro, NC 27407.

GP PUBLICATIONS, INC.: CORPORATE
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Volume 3, Number 1
 CD-ROM Today (ISSN-1069-4099) is published monthly by
 GP Publications, Inc., 1350 Old Bayshore Highway, Suite
 210, Burlingame, CA 94010, USA. Application to mail at sec-
 ond-class postage rates pending at Burlingame, CA, and at
 additional mailing offices. Newsstand distribution is handled
 by the Curtis Circulation Company. Subscriptions: 12 issues,
 U.S.: \$94.95; Canada: \$108.95 (Canadian price includes
 postage and GST — #128220688); Foreign: \$118.95.
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"Triad is a truly awesome game." But don't take our word for it.

RISE OF THE TRIAD

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(body bags not included)

Product Information Number 98



Disney
SOFTWARE

Compatible with IBM/Windows. Macintosh version coming soon.

pounce!
 click **Read**
play
Simba click
explore
ROAR
Mufasa
laugh click
Timon
Pumbaa
Read
learn
discover

Disney's Animated StoryBook "The Lion King" on CD-ROM.

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A free "The Lion King" mouse pad included for a limited time.



©DISNEY

The next few pages will guide you through the current selection of demos and previews, with specific instructions for getting the most out of them. You'll also find more help files on the disc, together with our new DOS front end that makes it easier to launch some really terrific games. Have fun...and Happy New Year!

1. From the Windows' Program Manager, click on File and select Run. In the Run window, select Browse and change the directory designation to your CD-ROM drive (usually D: or E:).
2. Select "install.exe" and click the OK button.
3. This will install The Disc! user interface and place a new icon in a *CD-ROM Today* program group.
4. Double click on this new Disc icon to run the CD-ROM. Note: Once installed, the same icon can be used to play future issues of The Disc!

PC version (minimum): IBM Tandy or 100% compatible; 386SX; SVGA (640x480, 256 colors); 4MB memory; Windows-compatible sound card.



Windows Users: please note that the Windows interface is optimized to run in an SVGA video mode, rather than a VGA or lesser video mode. If you do have VGA rather than SVGA, the interface will still work without problems but won't have all the colors and some of the box outlines that are normally part of the system.

The Disc! is manufactured by DISCTRONICS, one of the foremost disc duplicators in America. Before pressing, it is rigorously tested and certified virus-free.

Skier's Encyclopedia

This program from RomBoy (800-CD-TO-SKI) is a multimedia guide to U.S. and Canadian ski resorts. It includes an almanac of resort facts, narrated ski instruction, and information on various types of ski equipment. This CD-ROM targets the intermediate skier, but can be useful to anyone who is interested in this most popular of winter sports. You'll get an interactive taste of all of the *Skier's Encyclopedia's* essential features on the disc. (See page 68 for further coverage of this CD-ROM.)

Watch the introductory video from the main interface of the demo to see an overview of a typical



Our demo will give you an interactive taste of all the essential features of Skier's Encyclopedia.

ski landscape. From there, click on Almanac, Lessons, or Equipment for more options. Each of these screens will alert you to what buttons are activated on the menu.

Try This: Select Almanac from the main menu; you'll be given a color map of North America. Click on the western region of the U.S. highlighted in blue, then click on the state of California. Choose Squaw Valley from the list of resorts. This screen is completely functional to give an idea of the type and depth of information that's available in *Skier's Encyclopedia*.

How To Run: Simply click the LAUNCH button on the Windows interface for the disc.



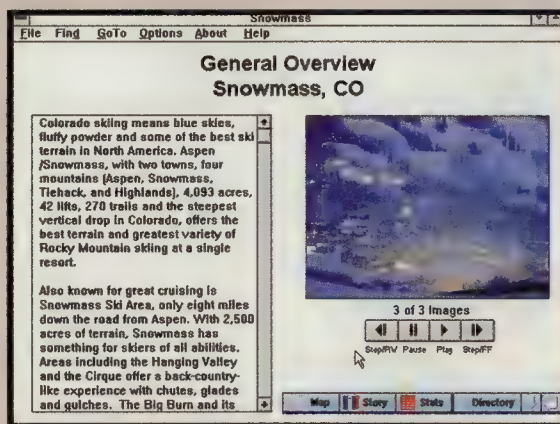
The colored dots on the map represent the overall top 12 resorts in California. But information on every important ski destination in California is available in the full Skier's Encyclopedia.

Ski Odyssey

Planning a ski vacation can be difficult if you don't have access to the right information. Media Odyssey's (800-99-SKI-CD) *Ski Odyssey* provides detailed descriptions and photographs of many U.S. ski resorts to make choosing easier. The disc includes listings of restaurants, lodging, skier services, shopping, and special events. You may also view maps, trail summaries, and lift types. (Read more about *Ski Odyssey* in the article on page 68.)

This interactive demo of *Ski Odyssey* allows you to explore the many options available on the full version. Experiment with the menu bar at the top of the screen to view a variety of search modes and navigation tools; the Personal Preference Navigator is designed to perform a custom search based on certain criteria.

Try This: On the first screen, under Go To, click on List All Ski Areas. This is an alphabetized grouping of all the resorts included on the disc. Click on R-S, then Snowmass, Colorado. You'll find several options on the resorts main screen. Try sorting the lists of restaurants, trails,



Ski Odyssey's General Overview for Snowmass, Colorado, is a nice pictorial introduction to the area.

and hotels by type. Also, double-click on any entry marked with a black diamond to obtain more information.

How To Run: Click the LAUNCH button on the Windows interface for the disc.

Discovering Utah

Some people say that Utah offers the best skiing in the United States.

Discovering Utah from Mountain View Media (800-241-UTAH) is an overview of the state's ski resorts, complete with trail maps, video clips, and mountain statistics.

This CD-ROM allows you to watch skiers on specific trails which you select from each resort's map. (*Discovering Utah* is featured in the article on page 68.)



Navigate your way around the slopes of Utah from Discovering Utah's main interface.



Utah offers a variety of facts on everything from lift tickets to recreational activities. It also gives head-to-head comparisons of snowfall, vertical, and acreage for all of the state slopes included on the disc. You'll be able to access a good portion of *Discovering Utah's* features from our demo on the disc.

Try This: Select Explore Resorts, then choose Snowbird from the map of Utah. Next, click on Resort Overview and press next until you're on the screen with a pie-graph noting the percentage of Beginner, Intermediate, and Advanced skiers that frequent Snowbird. Click on the words Beginner, Intermediate, or Advanced for an inside tip on trails within each range.

How To Run: Click the LAUNCH button on the Windows interface for the disc.



CLUB DEAD

WELCOME TO MTV'S 1ST CEREBRAL, CINEMATIC, ADVENTURE CD-ROM



Lane Powers-Vixen with a third eye.



Lewis Boucsein-Head of Security at the Alexandria playing with his gun "apester".



Richie 7-renowned sonic artist-angrily basking in his "Richie 7 Paradox Pad".

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Product Information Number 125

DOS Front End

We've tweaked our new DOS front end by adding a couple of small but useful enhancements: two buttons at the bottom of the left panel allow you to check both free memory and disc space left before installing a new program. We hope this makes using our disc easier for the DOS user.

To install the DOS front end:

- ① Exit from Windows if necessary.
- ② Change to the root of your CD-ROM drive (for example, to D:\).
- ③ Type DOSINSTL.
- ④ You will be prompted to enter the letter of your CD-ROM drive, and the letter of the appropriate hard drive partition.
- ⑤ You can then launch the DOS front end by typing DOSEND_D (or DOSEND_E, or DOSEND_F, according to which drive letter your CD-ROM is using).

With the DOS-based display showing, click on any of the buttons on the left to view system requirements and a brief description for each of the DOS programs. More details and further instructions can be found in the applicable Read Me files.

Note: Some DOS-based games – *Renegade*, for example – require a prodigious amount of free memory to run properly. You may need to experiment with different boot set-ups to provide this internal real estate. If a game has problems loading or quickly hangs, first check the total amount of free memory you're trying to run it in and see if it needs correcting.

Renegade: Battle for Jacob's Star

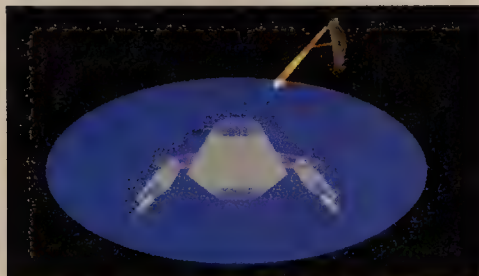
So far the mission has been uneventful, although you realize that could change at any time. It's comforting to know that on this initial check-out flight you're being shadowed by Mother, the best pilot in the Squadron. It's a bit unusual to have the squadron commander as a wingman, but then, unusual missions will soon become the norm for you. Somehow you sense this won't be a duck shoot like that virtual reality mission in the Holo-Space Simulator.



Prepare for battle in the *Renegade Interceptor*.

This demo of *Renegade: Battle for Jacob's Star* (from SSI), drops you right into the cockpit of a blindingly fast, awesomely powerful Interceptor fighter, and right into the middle of a galactic war. You have only one mission to fly, with only one choice of ship or wingman, but it's more than enough for this exciting space flight simulator to seduce you.

The full version of the game allows you to participate in campaigns consisting of more than 70 missions from a total of 200 available, and features more than 140 megabytes of 3D cinematic sequences as well as 180 minutes of digitized speech. It provides full use of the 25 different

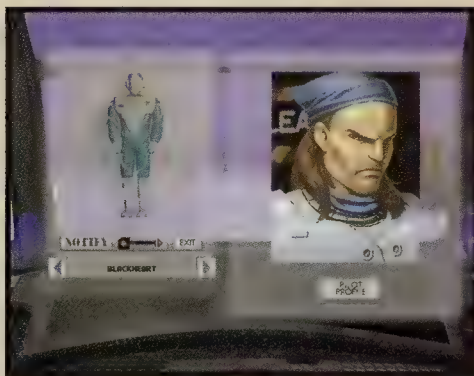


Laser blasts versus energy shields in instellar combat.

wingmen, as well as the eight specialized Interceptor craft. You progress through the ranks until you command your own squadron, making decisions on personnel, equipment, and strategy. Indeed, the campaigns' branching depends not only on whether you succeed in a mission but also on how you succeed.

A novel feature of the full version is the capability to load and play one of your own audio CDs, once you've started the game. Whenever the game needs to access the CD-ROM it will pause and ask you to switch the discs, but in the meantime you can cruise the galaxy to a musical accompaniment reflecting your own tastes.

You will be guided through the installation procedure – however, be aware that *Renegade*



Pick your wingman carefully for the fight ahead.

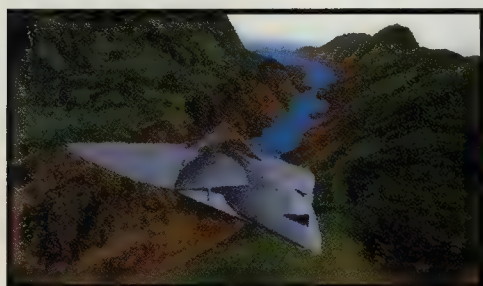
requires the maximum base memory available (600K+). There are also Read Me, Demo, and Mission files in the *Renegade* sub-directory with full instructions for flying the interceptor.



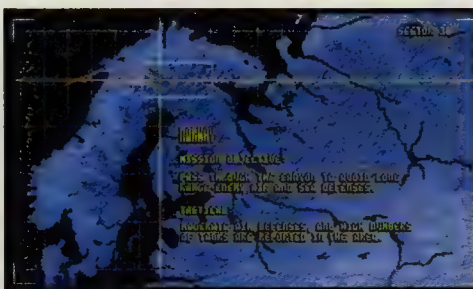
Cyberia

DOS Like many other recent thrillers, *Cyberia* from Interplay (800-969-4263) takes place in the future, and it's not exactly the days of wine and roses. The world of *Cyberia* is desolate, ripped asunder by the forces of a major cataclysm.

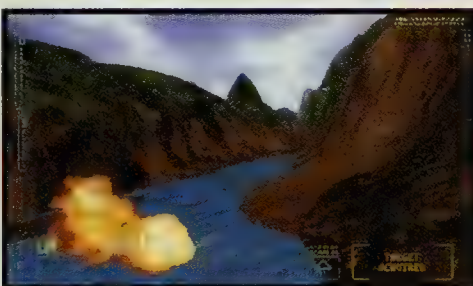
The game begins with your character, Zack, imprisoned by the Free World Alliance. Instead of prosecuting him, the Alliance offers Zack a chance to earn back his freedom by helping them out of a sticky situation. The Cartel, arch enemy to the Alliance, has been taking vast stockpiles of money and weapons to try and make this world their own. It's his job to infiltrate the base and bring back



In our demo, you'll see a flight sequence. Ready to blast the enemy, you're flying in low and fast.



The demo mission takes place in a danger-filled Norwegian fiord.

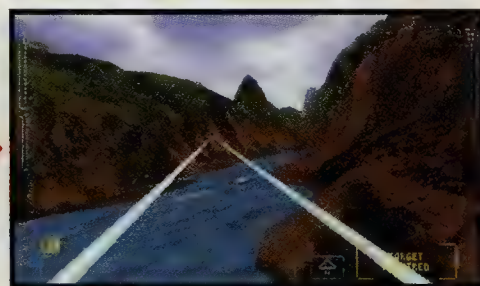


Scoring a hit in the Cyberia demo
anything he can find that might prove useful in defeating The Cartel. The game is packed with insidious puzzles, strange gadgets, and fast-paced

air combat sequences, all of which are displayed using incredibly detailed graphics.

Our demo gives you a good idea of what to expect for the flight sequences. Your mission: successfully pass through a fiord in Norway while avoiding long range enemy air and sea defenses. A joystick is mandatory to play the demo – and so are razor-sharp reflexes.

How to Run: *Cyberia* runs straight from the disc, but a setup is required. From the DOS front end, click the INSTALL button. Be sure to have your joystick plugged in and handy for the setup's joystick calibration screen. Once installed, the demo will run by clicking the LAUNCH button.



Keep on shooting if you want to stay alive in the fast-paced flight sequences of Cyberia.

CyberWar

DOS Sci-fi lovers should be thrilled with this new release from SCI (310-577-1518). You are thrown into the role of the protagonist Dr. Angelo and forced to prove your physical and mental stamina against the once simple Jobe, now a Cyber God operating from within the cybercomplex of the VSI mainframe computer. Dr. Angelo's mission is to penetrate the military defense network by using logic and coordination, then locate and destroy the Omega chip that is at the heart of CyberJobe's Virtual City.



Pointing to a tower of terror in CyberWar

The actual game package is stuffed with four CDs: three CDs of game play, and a fourth CD with exclusive original music by veteran rock musician Steve Hillage. The game is structured as a series of tunnels within the cybercomplex of the VSI mainframe computer. The player can select a unique path through the game, by choosing the order in which he or she wants to play the puzzles.

Path selection options are presented randomly, so gameplay remains constantly challenging.

Our demo features a fully functional version of *CyberBoogie*, just one of many puzzling tasks that awaits Dr. Angelo. In *CyberBoogie* you are transformed into a cyber sled and propelled through a tube-like maze inside of the mainframe. Although a keyboard can be used, a joystick or gamepad is recommended.

How To Run: Exit Windows and start the DOS front end. After reviewing the readme file, click the INSTALL button to begin the setup. Once installed, the LAUNCH button activates the game. Hit CTRL-ESC to quit *CyberWar*.



You won't run out of enemies in CyberWar.



Special armor transforms you into a warbird.

Coming Soon...



CD-ROM Today's

Annual Awards for
The Best
of the Year!

stay tuned...

Dominus

DOS If you think *Dominus* looks like just another hack-and-slash role-playing fantasy, look again. U.S. Gold has created a world that should satisfy a diverse group of gamers. There are the usual combat and adventure facets, but there's also a unique strategy aspect where you not only deploy your forces but also have complete control over the individuals under your command.



Making a selection from the menu of Dominus

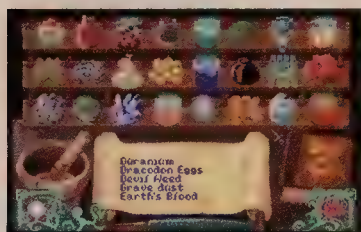
One of the slickest parts of *Dominus* is the facility to create your own creatures, mixing them up in a lab that would have Dr. Frankenstein drooling. They, and your four commanders, are under your total control as you direct them against monstrous hordes bent on taking your castle and your crown.



Scrolling view of the action in Dominus

Another fascinating feature is the use of artificial intelligence for all the game's characters, allowing you to interact with them in a variety of ways. This lends an uncertainty to the game that is often lacking in many games in this genre.

Dominus is not for the casual gamer — it takes a lot of skillful juggling to control the various areas of game play, so don't expect the full version to be something you can crank up for a quick ten-minute diversion...except that in the case of our demo, that's all you do have. Aside from this ten-minute time limit, you'll find a full-featured demo edition of *Dominus* that's sure to intrigue, entertain, and most likely, exasperate. There is an extensive help file — just click the Read Me button



Mix up your own spells and poitions in Dominus.

on the DOS front end — which will familiarize you with the essential controls.

Lords of Midnight

DOS King Luxor is missing, snatched away from the Land of Midnight to the Black Citadel of Boroth the Wolfheart. Boroth demands a ransom from you, Prince Morkin, but you realize that whether you pay the ransom or you decide to retaliate with force, your father's life will be forfeited. Another way must be found.

So begins the story of *Lords of Midnight*, an exciting new first-person adventure game from Domark (800-695-GAME). Finding a third option, you begin a journey with two of your friends, Corleth and Aric, to raise a special army of 12 from the lands surrounding



Open the book... and start the adventure.

Midnight. Even that will require great effort, however, as Boroth has kidnapped the rulers of neighboring lands as well. You'll need to rescue these leaders before you can hope to bring an army against Boroth.

Lords of Midnight is a truly beautiful game, at times drawing you in completely with its dazzling




Flying a dragon in Lords Of Midnight

first-person viewpoint. Especially arresting is your flight through the countryside, but the combat sequences are equally dynamic and realistic. Another welcome feature of the game is the ability to change your viewpoint from Prince Morkin to one of the other characters, providing a much richer, more rewarding gaming experience.

This sort of complexity doesn't come easily, and *Lords of Midnight* is still in development, but we can offer you this demo that provides a tantalizing taste of what's to come. From playing the very early test versions of the game, we can tell you that what you see is what you'll get, along with a great deal more.



This Is Spinal Tap

 **T**he cult hit movie *This Is Spinal Tap*, the mockumentary about a metal band on the giddy verge of implosion, is now being released as a two-disc package. The first disc contains the hilarious 82-minute feature, accompanied by alternate soundtracks with commentaries from the leading players and director Rob Reiner.




Spinal Tap on CD-ROM contains footage not seen in the original film version.

The second CD-ROM includes an hour-and-a-half of hilarious outtakes from the original three-and-a-half hour cut (including a lot of outrageous dialogue you've never heard before!), the movie's trailer, and a 20-minute marketing prequel, stills, videos, and other advertising material.

Sit back and watch the preview of this new Voyager title (800-446-2001) on our disc, and enjoy *Spinal Tap* again or for the first time.

Saturday Night Live

 **N**ow showing on your multimedia PC...it's Saturday Night! Twenty years of the best of "Saturday Night Live" have been condensed onto a 2-disc package. From the Blues Brothers to the Church Lady, from Chevy Chase to Operaman, all of "SNL"'s most popular skits and shits are included in more than 50 Quick-Time video clips.

The show, oops...the program uses a point-and-click interface that includes a digitized version of the familiar "SNL" set. There's also an interactive scrapbook with backstage photos. Hosts include Steve Martin and Tom Hanks, with musical guests Aerosmith, Madonna, and others.



What would an "SNL" retrospective be without Dana Carvey's impersonation of George Bush?

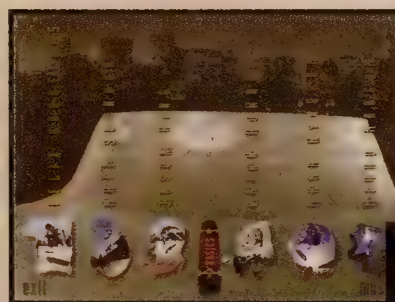
If the preview on our disc whets your appetite for the full 20th Anniversary "SNL" retrospective, call Gametek at (305) 935-8651 for more information.

Ride: An Interactive Skateboarding Experience

 **S**trap on your helmet and pads and get ready to ride! This entertaining instructional CD from Applied Images (408-251-4006) will surprise even the pickiest dare devils. *Ride: An Interactive Skateboarding Experience* provides amateur skaters of all skill levels with the opportunity to learn from veteran skaters Felix Arguelles, Matt Schnurr, Jason King, Brian Howard, Mark Wyndham, and Mirko Mangum. Each professional has his own section with accompanying videos and personal fact sheets.

There's also a Basics section that features videos for fundamental maneuvers like the ollie, the pop shoveit, and the 180 kickflip. The full product doubles as an audio CD as well, with skate music from Cargo Records' Bluchunks, Fluf, and Uncle Joe's Big Ol' Driver.

Our exclusive demo contains pictures and personal fact sheets from all six skaters and the



The cool front end makes it a snap to access any of the sections.

by clicking on the MUSIC icon in the lower right corner of the main menu.


How To Run: Mac users simply click on the *Ride* icon on the disc. Windows users click the LAUNCH button from the Windows interface for the disc.

Basics section, but the only videos featured are Felix Arguelles' and 180 kickflip. All videos feature VCR-like controls for pause, frame-advance and slow-motion. There are five different music selections that can be selected



Felix Arguelles sports the "Goofy Foot" stance.

People: Twenty Years of Pop Culture

 **M**ore than just a magazine on CD-ROM, *People: Twenty Years of Pop Culture* from Voyager (800-446-2001) is packed with interactive features that will help you navigate a complex web of surprising facts and inside stories. *People's* Senior Editor Eric Levin says of this new disc, "There's no better thumb-nail guide to the roller coaster of pop culture."

You can use the Star Maps to see who's been linked to whom romantically, artistically,



You can read the real-life stories of our best-loved stars.

or financially. Watch Michael Jackson morph from 5-year-old child star to the bright years of *Thriller*. Use the craziest of search words to see what topics of interest are turned up. Go behind the scenes of revealing interviews and anecdotes about the rich and famous. And peruse the gallery of all the covers and cover stories from 20 years of *People Weekly*.

The demo is a passive preview of a lively, interactive exploration of the tastes, scandals, and obsessions of celebrity life as it has been mirrored in the best-selling magazine.

People: Twenty Years of Pop Culture is available for both PC and Mac platforms.

Twenty years of People: a cavalcade of celebrities' ups and downs

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Come join us for a free tour of the community thousands of competitors throughout the country call home. Use the CD that came with this month's issue to install The ImagiNation Network, and get 5 FREE hours to explore! If someone beat you to it, send in the postcard or give the card to a friend so that they can have fun too!



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Imagination has the classic board and card games we all grew up with, like bridge, chess, and hearts. But that's only the beginning. Spend time with a noted actor or writer in one of our regular forums. (It's your chance to

ask that burning question the talk show host forgot.) Meet new friends you didn't know you had when you share your interests and hobbies.

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The ImagiNation Network requires a valid major credit card and at least a 386 IBM PC compatible computer, a 2400 baud modem, a mouse, a keyboard, and at least 580 kb of available memory. I understand that my first month's membership is free and that it allows me five hours of network access during the first 30 days with any additional hours I use billed at \$3.50 each. Each subsequent month that I remain a member, I'll be charged \$9.95 per month giving me five hours of network access time to be used in that calendar month with each additional hour billed at \$3.50. If I choose, I can call anytime to cancel my membership. Otherwise I'll just keep having fun!

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Offer Source Code: 815. Offer expires 2/28/95.
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IMAGINATION!

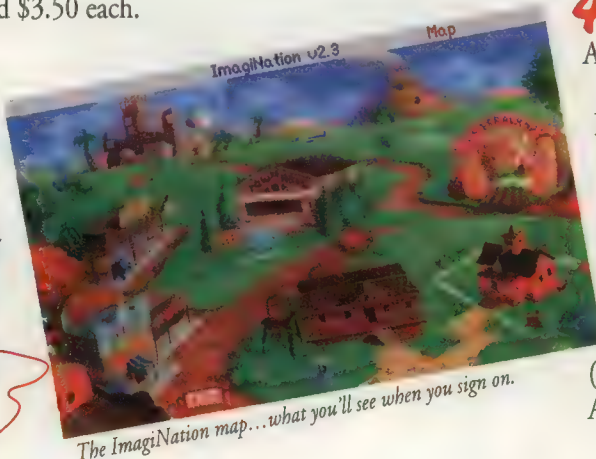
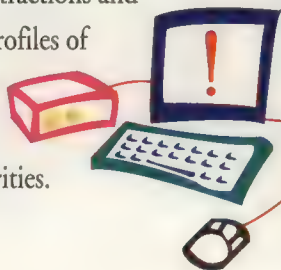
Start Exploring Your Own ImagiNation With 5 FREE HOURS!

Here's What You Get...

1. Mail in this card and in less than a week you will receive your software.

2. A brand new membership with 5 free hours of network time in that calendar month to get acquainted with new friends. After you use your free hours, you'll be billed at a rate of \$3.50 per hour during the first month. Each month you remain a member, you'll be billed just \$9.95 which includes 5 free hours; additional hours are billed \$3.50 each.

3. A free subscription to *Imaginings*, the members-only full color newsletter that highlights coming attractions and features profiles of members and on-line celebrities.



The ImagiNation map...what you'll see when you sign on.

Here's All You Need...

1. I have at least a 386sx or better with a hard drive and 4MB RAM. I also have VGA graphics and a Microsoft-compatible mouse.

2. You bet I have at least a 2400 baud modem. You think I want to have all this fun by myself?

3. To use ImagiNation requires a major credit card. I have one!

4. ImagiNation. Of course I have that. Are you crazy?

Install the disk that came with this month's issue, and get 5 FREE HOURS to explore The ImagiNation Network. If somebody beat you to it, call:

1-800-IMAGIN-1 ext. 815

(1-800-462-4461 ext. 815) from 8:00 AM to 10:00 PM, seven days a week.

The ImagiNation Network reserves the right to change features, rates, or specifications at any time.



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For All Mankind

Between 1968 and 1972, 24 American astronauts journeyed to the moon – the first human beings to leave this earth and visit another world. This is their story. *For All Mankind*, the prize-winning documentary by Al Reinert, uses the astronauts' own words and the images they brought back to trace the history of the Apollo moon missions.

The CD-ROM presentation features this evocative film, displayed in a larger-than-usual video window, plus 16-bit Surround Sound (including the haunting score by Brian Eno), an extensive interview with the director, hundreds of



The famous footprint on the moon

NASA images, animated sequences (including the lunar launch cycle), and biographies of the 24 men who went to the moon and back. There are also diagrams of the spacecraft, the spacesuits, and

other equipment, a glossary of technical terms, and detailed maps of the lunar surface. The trial version has a very easy point-and-click menu system, with the demo options lightly highlighted. It allows you to sample the major features of the program, and especially to see just how good the video reproduction is on a Mac.

For All Mankind is available from Voyager (800-446-2001) in both Windows and Mac formats.

Shareware Uninstallers

In this issue of the magazine, we examine current Windows uninstallers. You'll find a selection of shareware uninstallers on this disc. Some of these programs have been "unpacked" already and will install from the disc's interface, or can be copied directly from the appropriate subdirectory. Some packages include files with 'illegal' names (illegal for a CD-ROM's ISO format) – these we have left in compressed form in the subdirectories under \uninstall\comp. You will need to use the appropriate unarchiving utility to decompress these programs. All the shareware uninstallers come with text-file instructions.

Installable or transferable from the disc:

- Delta 3.0 (\uninstall\uncomp\delta3.0)
- Dspace9 (\uninstall\uncomp\dspace9)
- S.I.P. Uninstall (\uninstall\uncomp\sip)
- Space Hound (\uninstall\uncomp\spaceh)
- Win Dupe 4.0 (\uninstall\uncomp\windupe)

Compressed programs:

- Software Manager (\uninstall\comp\softmang)
- WinClean (\uninstall\comp\winclean)
- WinFormat (\uninstall\comp\winform)

Important Note: Please be aware that uninstaller programs are capable of making key changes to your system files and that we cannot be responsible for their use or operation. However, we hope that these programs help address a problem that many of you have contacted us about.

Amazing Animation

This program from Claris (800-544-8554) is an easy-to-use, multimedia animation tool developed especially for children ages 5 to 14. The CD-ROM version of this creative application includes additional stamps and scenes, as well as 10 educational projects for use at home or in the classroom. These animation projects are integrated with key curriculum areas, such as language arts, math, science, and history.

This demo version is limited in the following ways:

- 1) You can't save your movies.
- 2) The time per session is limited to 20 minutes. You can quit and start over again after 20 minutes if you would like to see more.
- 3) The trial version contains only a limited amount of stamps, scenes, and sounds for use only on color monitors.
- 4) Since you cannot save movies, the Buttons feature is not usable. In the full version, Buttons let you interactively link movies together.

Getting Started: *Amazing Animation* has three ability levels for kids of all ages with different experience. The Basic level allows kids to create simple animations using the three basic components of animation; backgrounds, scenes, and sound. The Tools level is for older children or experienced animators ready for more challenges. The third ability level, Effects, is for more ad-



You can animate the parrot and the monkey in this colorful jungle scene.

vanced users, providing tools for adding transitions, pauses, and buttons.

When you double-click the application icon, a new, blank movie is created. Each time you start *Amazing Animation*, you will see a blank movie-making area (called a frame), movie controls, and the Basic level tools including Scenes, Stamps, and Sounds. Further instruction will be found in the accompanying text file – Important Information – in the *Amazing Animation* folder.

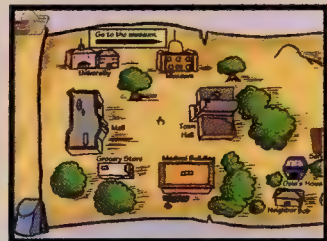


Tools and Gadgets: Adventures with Oslo

M eet Oslo – a strangely likeable, one-eyed, three-armed mechanical thingie – the host of a new series of CD-ROMs to teach scientific concepts to young people ages 5 to 14. *Tools and Gadgets*, the first Oslo title (from Science for Kids, 800-SCIENCE), uses animated stories, maze games, and adventure puzzles to get across the workings of several basic tools, the “building blocks” for a whole range of everyday machines.

Try This: No special setup or installation is required. Simply click on the Launch button to run the demo. The Oslo interface offers a variety of activities, each represented by an icon that looks like the activity itself. Click on the crayon to create an original drawing, or click on the book

icon to start an interactive story – if you want to hear Oslo read the story, push the “ear” button. Or try playing the maze game. The demo does a good job of showing how modules works.



Oslo teaches scientific basics to kids using a variety of activities.

ImagNation Network

T he ImagNation Network is the only on-line service dedicated entirely to games and entertainment. You'll find everything from fast-action arcade action to an “adults only” casino. Looking for more fun? There are conferences, a shopping mall, and play-by-modem games.

From our DOS front end, click on the ImagNation button to set up a self-running demo on your hard drive – once it's installed, you can click on Launch to start the demo. If you want to register with ImagNation, you can install the actual interface by switching to the your CD-ROM drive, changing to the imagine sub-directory and typing INN. Have fun!

CD-ROM Source

I f you want to see the wide range of multimedia titles now being distributed on disc, check out this abbreviated catalog of titles available from The CD-ROM Source. This interactive product list gives an overview of a few selected titles. It's very simple to use – just click on the hypertext “hot spots” to navigate your way through this computerized “brochure.” You will find product descriptions and program samples from new CD-ROM titles. Call (800) 346-CD-CD for more information.

Professor Iris' Fun Field Trip

G o on an African safari adventure with Professor Iris and his friends. You'll meet some amazing animals on this fun-filled, action-packed field trip.

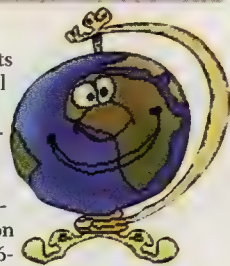
The purpose of this colorful program is to introduce youngsters to the joy of reading, stimulate their creativity with interactive explorations, challenge them with puzzles and games, and teach



Kids read along with Professor Iris as they learn about Africa and its animal life.

them some fascinating facts about Africa and its animal life.

The *Professor Iris* preview on our disc is a limited interactive demo, but offers flavor of the full program. For more information call Discovery at (301) 986-1999. *Professor Iris' Fun Field Trip* is available in both PC and Mac versions.



Out of the Sun

Y ou won't find any heat-seeking missiles, fancy radar, or heads-up displays in *Out of the Sun* – this is one flight sim that runs on pure adrenaline and sheer skill. Pick your fight – the Battle of Kursk, D-Day, or Midway – and take to the sky in a World War II fighter plane from either side. *Out of the Sun* is a classic dog-fighting simulator from Domark (800-695-GAME) makers of the award-winning *Flying Nightmares*. For the ultimate rush, it runs in an accelerated mode on Power Macs.

This demo allows you to be a Russian flier or a Luftwaffe pilot over Kursk, or to fly a Zero at Midway. The Read Me file contains some helpful tips on handling the controls of this very realistic sim. Placing the cursor at the top edge of the screen will access a drop-down menu that allows you to pick mouse or keyboard (and to customize the control keys), or a joystick, and other parameters of the program.

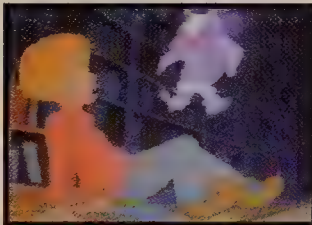


Be a Luftwaffe pilot or fly for the Russians in this demo of Out of the Sun.

The Pagemaster

T his new CD-ROM for youngsters continues the adventure started on screen in the holiday season favorite *The Pagemaster*, starring Macaulay Culkin. The

preview on disc gives you a taste of the high-quality graphics and gaming fun you can expect to find in this challenging adventure that plays out differently every time.



The Pagemaster takes a fun-filled approach to literature.

Coming Soon...

Here are a few of the programs and demos in the works for upcoming discs...

- *Highway 61 Interactive*: the Bob Dylan retrospective
- *Dragon Lore*
- An interactive catalog of The Learning Company discs
- *Magic Carpet*, *World of Illusion*, and *Peter & the Wolf*
- A shareware gallery of royalty-free photos
- Plus a brand new shelf of titles for your Electronic Library



Learning Company Catalog



Peter & the Wolf



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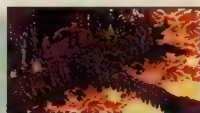
Let's face it — putting a truly great game

on a floppy disk is like trying to play profess-

ional football in a bathtub: you really need more room. That's

why the

about



ULTIMA VIII

designers at ORIGIN are excited

creating CD-ROM games. Finally, we

can roll up our sleeves and weave magic. • You want impossibly

awesome graphics?

art blow you away.



WINGS OF GLORY™

Watch our fully detailed

Hunt down the meanest

aliens in dozens of different galaxies — without having to guess

at what they really look like. • You're wired for sound, aren't

you? Then you should expect all your adventures to have it!

We have dynamic,

so phenomenal



SYSTEM SHOCK™

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you'll wonder where we've

hidden the conductor. • Of course, for everything you gain, you've

got to lose something. With a CD-ROM game, what you lose is



ARMADA™

the hassle. Forget about corrupt disks, too

little hard drive space or making back-up

copies. It's ancient history. Finally you can pop in a game worthy

of the system you bought for it. ORIGIN creates worlds to take

on the multi-media challenge.

Now it's up to you to conquer them.

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Offloading

Your publication deserves a Bravo! for the rare candor concerning fundamental problems with multimedia on the PC in contrast to the simple reliability of the Macintosh. As a new developer and publisher we have heard horror stories from many developers about the number of support calls we can expect from PC owners who can't get a title to run — through no fault of the developer or the PC owner.

This is unconscionable. Imagine if Chevrolet were to sell cars which wouldn't run on the same roads as other GM cars, much less Fords and Hondas, unless you got under the hood and tinkered with the transmission and fuel injection for each trip. The only people driving cars would be mechanics and tinkers — hmm, kind of like the old Homebrew days.

This is the dirty little secret of multimedia today. Customers don't want their spouses to know they've squandered the grocery money. Manufacturers don't want customers to know for fear of losing sales. Magazine publishers don't want readers to know for fear of alienating advertisers. Developers don't want venture capitalists to know for fear of scaring away investment dollars. And venture capitalists don't want Wall Street to know for fear of screwing up the public offering. So everybody keeps quiet. Meanwhile the phone lines burn up with IRQ, DMA, and WIN.INI fixes while return rates soar.

Admit openly that the promise of Plug-and-Play in Windows95 is a chimera. Tom Halfhill [New Frontiers columnist] accurately says, "...you'll have to buy a new computer, an updated operating system, and new boards and devices." What's left? Won't my applications have to be updated, too? Isn't that like saying I might as well get a PowerMac now and be done with it?

If we want a wide range of really great multimedia in the future, we've got to demand an "appliance" today. My VCR doesn't even require me to set the clock, yet I can easily run any one of a thousand tapes. Why should my multimedia PC be any different?

An appliance mentality also leads to lower software and hardware prices. You pay more for the cost of all those support calls than the CD-ROM itself! And many board manufacturers have more people on the phone lines than in R & D.

Whew. I'm glad to get that off my disk. Even though we're described as propellor heads, we believe everybody should be able to enjoy the interactive revolution.

Kirk Knight, President, All of the Above, Inc.
Sausalito, California

Thanks for your letter, Kirk. Since we, too, publish a CD-ROM, we're well aware of the problems you note. Yet we don't feel the situation is nearly as desperate as you describe.

The problem is historical. Lance Elko, editorial director for CD-ROM Today, wrote his FirstWord column on this subject in the June/July issue: "Why is the PC environment so kludgy? The simple answer is that while Apple kept tight control of the Mac, IBM offered an open architecture, which allowed the free market to devise new boards, new drivers, and consequently new demands on memory and system files. Improvements in quality also meant an increase in confusion.... PC multimedia in 1994 is not pretty, but it's the reality we all deal with. Windows 4.0 [now Windows95] and Plug-and-Play promise to eliminate most of the problems...."

We agree that the Mac is a more elegant — though not perfect — solution, or appliance. We're all waiting to see exactly what Microsoft delivers with the promise of Plug-and-Play.

In the Tom Halfhill column from which you quote (also in the June/July issue), he adds that "changes will be phased in over the next few years. By the end of the decade, PCs might actually be easier to set up than VCRs."

We take the long view; computer technology is evolving quickly, even though it's still very much in its adolescence — and that's always an uncomfortable time.

No, We Didn't Notice

I read your review of *Leonardo the Inventor* [November 1994]. I have trouble believing that the designers "understand their subject thoroughly" when they've got the helicopter rotating backwards.

Bruce/via Internet

Like the designers, we missed this, too. A bit ironic, too, since we're all propellor heads.



Video for Windows: Update

I have trouble running Microsoft Video for Windows 1.1 Runtime, and so do many friends of mine. Is there an updated version available? We are all experiencing problems running other program videos after installing 1.1.

RWK/via AOL

Yes, version 1.1 is problematic. You need to obtain 1.1d Runtime. You can find it on our November and December editions of our disc under the winvid subdirectory, and it is available online from any of the major services.

1.1d includes several performance improvements, including palette and DCI support (the latter offers improvements affecting

performance on video cards using S3, Cirrus, and other chip sets).

A Pleasant Surprise

Well, I finally did it. I went out and bought one of those cool new CD-ROM drives that play the shiny little discs. Inevitably, I came to the obvious problem of what software to purchase. You'll be happy to know that your disc was the first thing I purchased to run on my system, and I couldn't have made a better choice. The October issue gave me a real assortment of fun stuff to look at, as well as educational previews for my eight-year-old and some interesting demos of several documentary-style programs.

After powering down the computer, the magazine continued to provide me with information and entertainment. Congratulations on hitting the right balance between these media. I look forward to seeing (and hearing) subsequent issues!

Brent Beale/via AOL

Readers' Choice

Initially purchased and then subscribed to *CD-ROM Today* because I noted on the cover of your June/July issue a "9-page investigation of Sex on CD-ROM," a generally well-done piece. I also paid with a \$49.95 check just as most of your subscribers do, even the one who called her payment to you a reward for dropping the porn ads.

I direct you to your "Sex on CD-ROM" article in the 1994 June/July issue (p. 50), which stated "if you're offended by the nature of the subject matter, skip to another article in the magazine." Similarly, I suggest that those subscribers not interested should read other ads than those which describe CD-ROMs having sexual content. Moreover, as the article also stated, "Like it or not, the multimedia world has lost its virginity, and the focus is shifting from abstinence to the practice of safe software."

I will continue to read such ads, even when placed in the back portion of your publication, as long as you exercise your right to print them. Let those who are not interested read other portions of your excellent magazine.

A Female Subscriber

Computers, Modem Games, and, uh...

Yours is one of the best magazines I have ever read. I live in a small town in Saskatchewan. All we have to do here is use computers and play modem games. The reason I bought your magazine was for the price and over 300 megabytes of information, games, and utilities. My friends also buy the magazine even though they don't own a CD-ROM drive. They're

keeping the discs and waiting to buy a drive. Thanks for the great magazine.

David Berg/Humboldt, Saskatchewan

A New Chapter

The e-books on your disc are a welcome extra. I have Quality Software's "Smart Voice," so I load the books, fire up Smart Voice, highlight several chapters, and have my Mac read the book to me.

Frederick Stancliff, Jr./Montrose, Colorado

Ironically, this issue's disc is the first without any e-books — we were stuffed with demos and pre-views. Nonetheless, our first six discs each had a large number of texts. We'll be bringing you more in the near future.

Cheesecakes

I really enjoy your magazine and the disc. I like browsing through it. One thing I miss in your later discs is those silly little QuickTime movies of people on your staff. I know they were a little cheesy sometimes, but they added a personal touch.

StuartEv/via AOL

Thanks, Stuart. Cheese is always great for the holidays, so here's a family album.



Here's most of the staff: (above) Anne Tucker, James Piper, Lisa Howie, Carol Ellison, Phill Powell. (below, l. to r.): Amy Pruette, Lance Elko, Hudson Best.



Question or Comment?

Write: Sounding Board, CD-ROM Today, P.O. Box 29364, Greensboro, NC 27429
Fax: (910) 632-1165
Online: cdromtoday@aol.com

For subscription or customer-service questions, call (415) 696-1661, contact us at the AOL address listed above (please use SUBSCRIPTIONS or CUST. SERVICE in the "Subject" field of your email), or write CD-ROM Today, Customer Service, Suite 210, 1350 Old Bayshore Hwy., Burlingame, CA 94010.

Editor's Note

CD-ROM Today reserves the right to edit letters for clarity and length.

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New CD-ROMs show the war...and more

INCOMING: MULTIMEDIA VIETNAM

It's surprising the Vietnam War as a multimedia subject hasn't been tackled until now, given its place in the American psyche for 30 years. This most unpopular of wars still triggers violently hot emotions among many Americans.

At least three new products are dealing with the war and its effects. Other discs are sure to follow (a blockbuster collaboration between Apple, CBS, and *The New York Times* has been rumored for some time).

The Many Wars of Vietnam

Medio's comprehensive *Vietnam* explores the war's many entanglements: France vs. Viet Minh, South Vietnam vs. North Vietnam, America vs. Viet Cong, Hawks vs. Doves, Imperialism vs. Communism, and so on.

Vietnam sorts all this out through extensive background. An "Overview" section offers audio explanations of the political currents that shaped the war. Meanwhile, a "Timeline" stretching from

mid-19th century French colonialism to the 1982 dedication of the Vietnam Veterans Memorial delineates the complex progression of



Medio's *Vietnam* studies a complicated war from many vantage points.

events. Similarly, "People, Places & Events" profiles the various military and political leaders "in charge" and also maps out key battle sites. The "Library" section excerpts

"One of the program's main goals is to evoke emotions from the viewer. The CD is about a war and its memorial, but its focus is on the human issues attached to them."

— Joe Feffer
Producer, *The Wall: A Living Memorial*

texts from books like George Herring's *America's Longest War* and the infamous Pentagon Papers.

The presentation isn't confined to documents, timelines, and maps. Sample battle footage includes video clips of jungle warfare and the siege at Khe Sanh, while the ideological war at home is chronicled through clips of veterans protesting at the

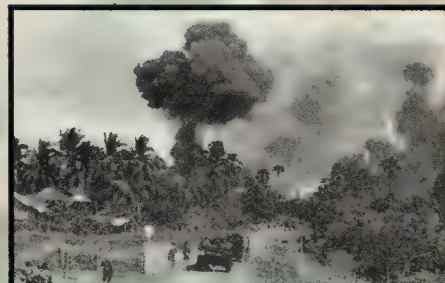
Capitol, as well as a speech by Martin Luther King, Jr.

The stunning still photography is also pure history, with an intimacy that's often shocking: a suspected VC interrogated at point-blank range; ravaged villages disappearing in smoke; an embassy official slugging a would-be evacuee during the frantic exodus from Saigon.

The most stirring section of *Vietnam*, "Experiences and Opinions," features video interviews with 12 who were there. A journalist recounts seeing the bodies of the first two American casualties (in 1959), while an American infantryman shares his experience of witnessing grisly war crimes. The most affecting recollection comes from a helicopter gunner propelled 50 yards after trying to pull a soldier from an exploding chopper. (He later threw away



The evacuation of Saigon brought out the best and worst in those involved, often at the same time.



If it looks like a war movie, but it's not...It's *Vietnam*, a new product from Medio.

his medals in public protest).

Vietnam does an admirable job of avoiding offense toward those who served, although the product's general tone suggests this was a war whose frustrating conclusions were sadly inevitable.

In Memoriam...

For those who haven't seen the Vietnam Veterans Memorial (or who want to

relive the experience), Magnet Interactive has created *The Wall: A Living Memorial*, centered around a 3-D model of the stark black granite wall. Additionally, Magnet's CD-ROM pays individual tribute to the 58,191 Americans who



This startling interrogation scene is one of many dramatic photographs that found its way onto *Vietnam*.



The Wall: A Living Memorial takes each name from the Vietnam Veterans Memorial and fleshes it out with pictures and personal histories.



Passage to Vietnam contains 400 artistic images of a country locked in a constant state of transition.

died during the war, in a way the Wall can't. The memorial lists the names of all Americans killed in Vietnam: the CD-ROM uses its reference capabilities to supply extra information about each

"The CD is designed to offer people new ways to interact with, learn about, and relate to Vietnam, a country which has had such a dramatic impact on the lives of so many Americans."

— Rick Smolan
Creator, Passage to Vietnam

casualty (birthdate, hometown, branch of service, rank, age and date of death, and location on the Wall).

Magnet underscores the emotional aspects of the war and its memorial, addressing the bonds between military personnel and their friends and family. *The Wall* presents letters written from front lines, illustrating the anxieties of soldiers fighting an unpopular war a long way from home. Another section shows some of the

countless personal artifacts visitors leave at the Wall near loved ones' names. 300 of these mementos are pictured, with descriptions of the items and their personal significance.

The Wall's four additional sections cover the Wall's design and construction, the recently dedicated Vietnam Women's Memorial, public ceremonies that have taken place at the Wall, and a general recounting of Vietnam's war history.

Time Marching On

Rick Smolan has a knack for orchestrating interesting projects. The photographer who brainstormed the "Day in the Life" book series (and the critically acclaimed book/CD *From Alice to Ocean*) has applied the same basic idea to a book titled *Passage to Vietnam*, adapted for CD-ROM by Smolan's Against All Odds Productions in conjunction with Ad-Hoc Interactive. Smolan organized a small army of 70 photographers

(many of whom photographed the war) for an excursion to modern-day Vietnam.

Through the largess of the Vietnamese government (and the financial backing of numerous corporations), Smolan and company were allowed to roam the country's 53 provinces for seven days, even into areas off-limits to most Vietnamese. The photographers captured more than 200,000 images during their March, 1994 visit. Only 200 of the photos made the



Rick Smolan's Passage: Proof that Vietnam didn't cease to exist when the war did.

final cut for the *Passage* book. The disc contains double that amount, as well as 30 minutes of full-motion video from the excursion.

Special emphasis is placed on the project's photography, with virtual galleries offering users an intimate look at techniques used by inspired photographers. The CD-ROM (Windows, Mac) is available as a stand-alone or in tandem with the coffee table book.

Smolan's *Passage* proves that the 4,000-year-old southeast Asian country, despite constant upheaval, is a stubborn survivor capable of outliving any war.

For information on *Vietnam* (Windows; \$59.95), contact Medio at (800) 788-3866. To find out more about *The Wall: A Living Memorial*, call Magnet Interactive at (202) 625-1111. Ad-Hoc can supply ordering info for *Passage to Vietnam* (Windows/Mac; Price N/A, 800-928-4465).



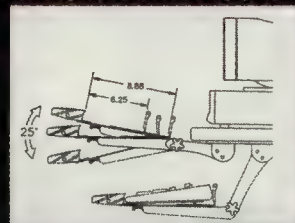
Medio's Vietnam takes you to the brink of war...and beyond, with photos, battle footage, maps, and plenty of interesting documents.



In Brief... HARDWARE

Wrist Watch

Are your wrists worth \$200 to you? Ring King thinks so. Their latest peripheral allows you to change the position of your keyboard. The idea is to reduce the risk of repetitive strain injury by making it possible to keep your



Ring King's Articulating Keyboard Platform takes many neutral positions.

wrists in a "neutral position." The unit (with padded wrist rest) bolts to your desk's underside and lets you swing the keyboard out of the way when your typing's done. Ring King can direct you to a reseller... (800) 272-2366.

Phone Home... and Smile

ASL's new Mobile MegaConference incorporates its MegaMotion video capture card and works with Toshiba's T6600C laptop



ASL's Mobile MegaConference uses a 28.8 K modem to transmit real-time video images over standard phone lines.

series to let travelers videoconference over regular phone lines. The Mobile MegaConference (\$1,195) posts the video of both parties. The screen also houses a "white board," where drawings can be shuttled back and forth. Users can enter messages to each other via a two-way teletype and port the MegaConference display to an external computer monitor or television set. Alpha Systems Lab... (800) 576-4ASL.

In Brief... SOFTWARE

Unlocking Stargate

If the recent sci-fi film *Stargate* left you wondering how its special effects were achieved, Compton's New Media is ready to explain. Their CD-ROM *Secrets of Stargate* delves into the weird world of Hollywood film production. The \$39.95 CD-ROM (Mac or Windows) explores special effects

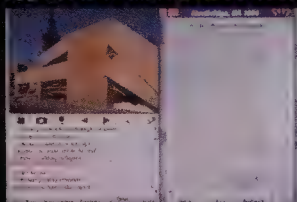


Why are two hundred men lifting this massive object out of the desert? And how was the scene filmed? *Secrets of Stargate* knows.

techniques, set construction, costuming, and other aspects of production planning. Compton's New Media...(800) 532-3766.

Shakin' All Over

Last January was a scary time for Southern Californians shaken to their foundations by the 6.7 magnitude Northridge earthquake. Although nobody will want to relive that shake-up, there appears to be much to learn from



Ted Koppel reports on terrifying natural disasters in Sony Imagesoft's Earthquake.

Earthquake, the new CD-ROM produced by Sony Imagesoft, ABC News Interactive, and Haukom Associates. Hosted by Ted Koppel, the Windows disc combines 40 minutes of news footage with a bevy of photos, maps, and charts. The product focuses on the 20th century's top rumblings and contains sections that teach you how to prepare for earthquakes. Sony Imagesoft...(800) 922-SONY.

NET NOTES

• **I Am Joe's E-Mail...** For decades, Americans have been sending jokes and stories to *Reader's Digest*. Now they can do so electronically, by uploading submissions on **CompuServe**. Short items (300 words or less) to be considered for the magazine's famous departments ("Laughter, the Best Medicine," "Humor In Uniform," etc.) can be sent to "readersdigest." The yuks add up: *Reader's Digest* receives more than a quarter of a million submissions each year, and will pay up to \$400 for each choice bit.

• Everyone knows the Internet contains vault after vault of useful information. Less understood is that there are also freebies to be had, if you know where to look. A new book, *Free Stuff* from the Internet does your tracking for you and leaves you with step-by-step instructions that eliminate the need for time-eating research. The book costs \$19.95 and can be ordered directly from **The Coriolis Group** at (800) 410-0192.

• A set of mini-developments at **America Online**: 1) AOL has fortified its fledgling Internet Services Company by acquiring **BookLink Technologies** and **NaviSoft, Inc.** Booklink's "InternetWorks" is a feature-laden interface for Internet applications; 2) AOL will launch a service dedicated to outdoor sports and adventure travel. "Outdoor Adventure Online" is a partnership between AOL and **Turner Publishing** (yes, *that* Turner). Outdoor enthusiasts will be able to download travel information about favorite vacation spots and socialize with over adventurers via specialized forums; 3) Another AOL collaboration, this one with **Shopper's Express**, is letting shoppers select drug-store type goods online for same-day home delivery. Shopper's Express currently operates its services in 28 states.

• **Prodigy's** Tekno-Comix Forum gives you many of the standard offerings found in specialty forums — background information, sneak previews of upcoming events, and downloadable

hi-res images of characters. The Tekno-Comix Forum, however, has something else, too...its own resident character who "lives" in the forum, but could pop up anywhere on Prodigy. **Neuro Jack** (nee Dr. Jack Brunner) was a scientist who had his consciousness transferred (or "neuro-jacked") to a computer system. Neuro Jack must be like many first-time net users. According to a press release, "for a while he indulged himself, losing himself in the knowledge of a hundred different worlds, absorbing it all with the speed of thought."

• "To sample this boat drink, click here" ...**HotWired** (Wired's online version) has picked up an upscale sponsor — **Club Med**. Club Med, the developers of 114 vacation villages in 35 countries, have added an electronic brochure covering everything under the tropical sun. Plugged-in vacationers can now plan a vacation from their desktops, then phone an 800 number and finalize their plans.

PAK-MANIA

Last issue we reported on the unexpected success of Sirius Publishing's *5 Ft., Ten Pak*. Sirius took a collection of CD-ROMs from various publishers, bundled them in an accordion-style set of disc wallets, and sold the package for under thirty dollars. Customers responded enthusiastically to the product's value and the rest, as they say, is retail history.

Well, not quite. See, the industry realized that this was a concept capable of provoking sales of well over a quarter million units. That's why we're now seeing other software developers court the combined-product crowd.

Megamedia is already accustomed to grouping products. The San Jose company has made a specialty of

bundling hardware and multimedia upgrade kits.

The first volume of their *Mega-*

Pak bundle combines 11 CD-ROMs (besting *5 Ft. Ten Pak* by a disc) for just under \$40. Titles include Activision's *F-14 Tomcat*, *The Savage Empire* by Origin, CMC's *Dinosaur Safari*, and *Links, The Challenge of Golf* by Access. For more info, contact Megamedia at (408) 428-9920.

Electronic Arts is also getting into paks, in an even bigger way. Their *Top Ten Pak* groups 10 PC games onto one CD-ROM, for the same \$40 price Megamedia observed. As you might expect, Electronic Arts has published enough



titles to make it unnecessary to look out-of-house for software to bundle. *The Top Ten Pak* games are all EA, including *Chuck Yeager's Air Combat*, *Kasparov's Gambit*, *Ultima VII: The Black Gate*, and *Wing Commander II*.

EA has five more paks up their sleeve, too. These are centered around a certain specific interest (*Sports Pak*, *Simulation Pak*, etc.) and only contain four games each. Accordingly, these other paks will retail for \$19.95. For added info, call EA at (415) 571-7171.

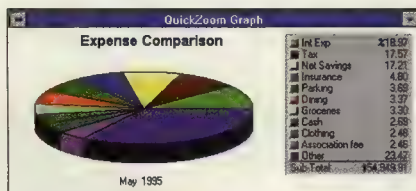
All We Did Was Make It Easy To Organize Her Finances.

"Now I'm doing what I've always wanted to do." Becky Hatt, San Rafael, California

Becky Hatt took off from there.

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"Quicken shows us exactly where our money goes and how much we have, with graphs and reports. It even predicts our future."

and start our own business.

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Quicken painlessly organizes finances. You take it from there.

In Brief... SOFTWARE

Natural Born Killers

They're a cold-blooded bunch, living in some of the worst neighborhoods around. They're reptiles, and REMedia has put together a CD-ROM describing the lives and habits of snakes, crocodiles, lizards, et al. *The World of*



Snakes, lizards, and turtles get their due in The World of Reptiles.

Reptiles (Volume 5 of the ZooGuides series) studies this fascinating class of animals through 40 minutes of narrated video, a collection of 200 pictures, and animations. *The World of Reptiles* (Mac and Windows version on one disc) carries a \$39.95 street price. REMedia...(619) 486-5030.

What If?

What if the JFK assassination attempt had failed? Quadra Interactive has built a political simulation game around this simple, yet intriguing premise. *Reelect JFK* casts you as the Chief Executive himself in 1964. Aside from trying to unravel the assas-



Reelect JFK has more than 2600 possible story branches, enough to satisfy even an Oliver Stone-sized appetite for conspiracy.

sination attempt and running for a second term, you interact with more than 60 characters while getting the feel of '64 from newsreel footage and headlines. The \$49.95 disc (Mac or Windows) can be ordered from Compton's New Media at (800) 532-3766.

THE COMPRESSION OBSESSION

At your favorite video emporium, the clerk hands you your film of choice. The jewekase holds a single silver disc.

Your research results are quadrupled by your new multimedia encyclopedia. No disc shuffling is needed, either. Thanks to its gargantuan storage capacity, one thin disc holds more info than any first-generation multi-volume CD-ROM set.

Your taste for escapist action is more than sated by the latest role-playing game. The faraway lands you explore are as immense as they are imaginary. You're beginning to doubt the game has any perimeters. People haven't seen you in weeks.

These three scenarios — all quite likely because of the race for space, the drive for greater data compression. As programmers and software designers contemplate the benefits of increased density, engineers grind on, searching for new technologies that allow larger and larger amounts of data onto disc.

Philips, who (along with Sony) currently owns the patent on CD-ROM, this summer announced their proposals for CD-ROM's next phase. The rest of the industry, hesitant to entangle itself in a "standards war," is expected to fall in line with Philips' specs. The technical elements may take several years to be fully realized, but should eventually produce a storage capacity five times greater than what we have now. The target specs for Philips' proposed HDCD (high-density CD) call for 3.3 gigabytes of memory, which they claim will provide enough storage for 2 hours and 15 minutes of video play time.

Putting more data onto disc is only one part of the problem. A more pressing set of difficulties arises in the

retrieval and processing of the stored data. HDCD will require hardware changes from all parties involved — from developers and replicators to the end user.

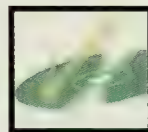
Here, in a nutshell, are some of the issues that effect and are affected by the push for increased compression.

Pit Bulldozing



The key to the data on a CD-ROM is the sublayer, whose plastic base is sprayed with an ultra-thin layer of aluminum paint. This sublayer contains tracks much like the grooves on a vinyl record. This is the information vault; inside the tracks are billions of data bits, each tucked into microscopic compartments (or pits). The trick to increasing the density is in changing the geography of this sublayer. Push smaller pits tighter together and you'll create more room for data. The technology to facilitate higher density is already understood among disc replicators, although that information may not be thoroughly utilized for a few years.

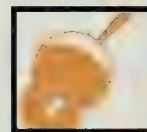
Light Switches



Once more information is crammed onto disc, better lasers will be needed to aim a more sharply focused light beam onto the data track being read (more tracks = thinner tracks). Several candidates exist, including powerhouse blue lasers that deliver the goods but burn out quickly when operated outside of a refrigerated state. Another possibility involves red lasers, whose wavelength is essentially sliced in half when its light is

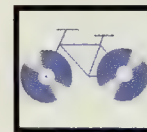
pushed through crystals. The kind of laser that best fits into Philips' plans, however, is already found in some barcode scanners. It's a red laser that isn't terribly expensive to make, and produces an operational wavelength of 635 nanometers. Philips has manufactured these for several years and is currently being joined in their efforts by other giant electronics manufacturers.

Bringing Things into Focus



When lasers change, optics need to change with them. CD-ROM drives include a lens that grabs the light reflected off the disc. The power of this final focusing lens is known as the numerical aperture. Current CD-ROM drives utilize a standard aperture of .45 nanometers, while the proposed standard is projected at .52 nm. Playing with lenses is a particularly tricky technical area, having a potentially critical impact on other functions. So anything beyond .52 isn't likely for the foreseeable future.

Pedal Pushing



Although you may be perfectly content with your double-speed drive, be forewarned that it may be ancient architecture when HDCD is introduced. Experts say that the magic number is 4, as in 4X. 4X allows bit rates nearing 5.6 Mb/sec, which is sufficiently quick for running movies off disc. The big problem with 4X: as the speed increases, the room for video storage on a disc goes down. One possible

• see *Compression*, page 30



the Pagemaster™



THE THRILLING CD-ROM GAME THAT'S A CONTINUATION OF THE MOVIE!

**First do your homework,
then battle a dragon or two!**

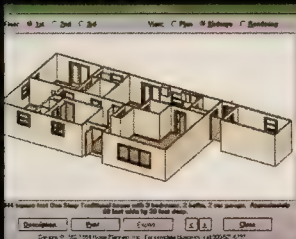
With *The Pagemaster*™ CD-ROM game, the adventure continues where the smash hit film leaves off! This dazzling, state-of-the-art game lets your kids use their imaginations to create a new, astounding, and totally awesome experience every time they play! *The Pagemaster*™ CD-ROM game—Continue the Adventure!



Foresight Resources Corp. has brought together 200 of America's best-loved house plans. *Most Popular Home Designs* asks users to pick a basic architectural outline, then calls upon Foresight's own Planix software to determine proper dimensions and sketch out the exterior walls. Once these have been established, the Planix "draw room" tool can be used to fill in the interior walls. The end results are exportable as scaled

[illegible]

Best-laid plans: Most Popular Home Designs contains diagrams of 200 houses.



drawings and spreadsheets and can be printed out in a variety of graphics formats (CAD, Corel-Draw, Paintbrush, Windows Draw, and Micrografx Designer). To find out which retailers will be carrying *Most Popular Home Designs* (Windows; \$49), contact Foresight at (800) 231-8574.

CD-ROMs should enhance people's lives, right? And lawyers are people, too...right? Right?

Hmmm...at any rate, lawyers are definitely people whose work requires heavy doses of reading and research. CD-ROMs offer incredible reference storage and quick search functions, two things that can speed up research work. Here are two new CD-ROMs specifically addressing legal matters.

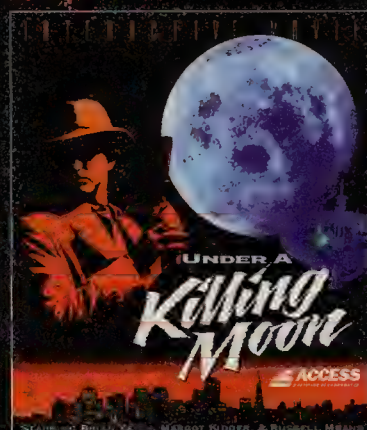
Wiley Law Publications has come up with a reference product that focuses on the finer points of employment law. *Wiley Employment Law Library* collects over 17,000 pages of related text, which can be searched via a Folio Infobase. Three subject libraries cover the employment law spectrum, from civil rights to sexual harass-

ment. Caution: you may need to be a lawyer to afford these discs. Your first subject library will run you \$597, with each additional library costing \$397. Call (800) 825-7550 for more details.

Capsoft, in conjunction with Microsoft Word and Lexis/Nexis, has cooked up a set of dependable legal templates

ACCESS
Brings You
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Virtual World
Interactive Movie!

This category-creating Interactive Movie from ACCESS Software goes light years beyond any other product labeled "interactive." **Under a Killing Moon** takes you to the streets of post World War III San Francisco and casts you into the role of Tex Murphy, Private Investigator who first appeared in Mean Streets, and Martian Memorandum. **Under a Killing Moon** is a Virtual World full of people and places so richly detailed you'll feel like you're actually there.



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Coming Soon to a PC Near You! Coming Soon to a PC Near You! Coming Soon to a

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What Reviewers are Saying:

"Lots of games claim to be pushing the envelope—*Under a Killing Moon* blows it to smithereens!"

—William Trotter, *PC Entertainment*

"*Under a Killing Moon*...the most elaborate graphic adventure to date. A ground-breaking CD adventure!"

—Joyce Worley, *Electronic Games*

"*Under a Killing Moon* combines the best elements of movies and computer games and creates an amazing interactive experience that's better than either of them. It literally pulls you into the screen."

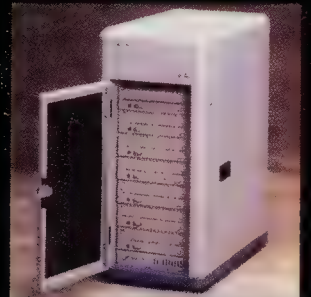
—Denny Atkin, Entertainment Editor, *Compute*

("HotDocs") that can be readied at a moments notice. Capsoft incorporated 100 legal documents established by legal experts. When it comes contract time, all that's necessary is to plug in names, computations, and other specifics. HotDocs can be bought through a package deal involving Microsoft Word Legal Resource Kit, or ordered from Capsoft... (801) 763-3938.

In Brief... HARDWARE

The Quad Squad

Quad drives are hot stuff, so that should make Procom's new Mac tower sizzling. It contains seven (!)



Procom opens the door to hyper-quick data transfer with its CDT7-Mac quad tower, sporting seven quad drives.

4X drives that transfer 600KB of data each second and hustle along with a 120-ms seek time. Bonus: Procom's Smart SCSI CD board enables the CDT7-Mac to occupy only one SCSI ID (so you can hook up other SCSI devices at will). Procom's subsystem supports EtherTalk and AppleTalk networks and is compatible with Macintosh II (and higher) systems as well as PowerMac's 6.0 and 7.5.x running systems. The CDT7-Mac, capable of storing 4.5 gigabytes of data, comes bundled with its own CD-ROM driver software package, containing an "AutoCache" feature. The subsystem was designed to benefit small and medium-size Mac networks. Call Procom for details on the \$6500 tower... (800) 800-8600, ext. 414.



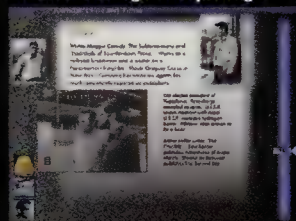
Coming Soon to a PC Near You! Coming Soon to a PC Near You! Coming Soon to a PC Near You! Coming Soon to a PC Near You!

Product Information Number 81

In Brief... SOFTWARE

Get Back, Jack!

A Jack Kerouac ROMnibus has been delayed until early spring, so its creators can make the \$49.95 disc playable on either Mac or Windows. What's in it for loyal Kerouac-ians? Two complete novels (*The Dharma Bums* and *The Subterraneans*) and hefty chunks of other writings. The package

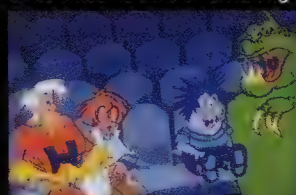


1953 may have been tame...but the Beats weren't. The Kerouac ROMnibus explains why.

also provides audio and video clips of Kerouac and other notables. Particularly exciting, however, are the personal journals, photos, and letters supplied by Kerouac's estate. Largely Literary Designs at (800) 831-5463.

Blinding Kids With Science

IBM's new cartoon ROM, *The Adventures of Hyperman*, sets out to entertain kids while teaching them the ways of the world. The animated story begins when a child genius accidentally opens a scientific Pandora's Box. Out pops a two-ton blob bent on wreaking



Hey, siddown ya big blob...The Adventures of Hyperman is about to start!

havoc, with the help of an ornery henchmen. Enter Hyperman, who (in the course of rescuing the planet from certain destruction) manages to instruct children in topics culled from physics, genetics, and biology. The Windows disc sells for \$39.95. IBM...(800) 898-8842.

CHART TOPPERS



PC Data Hits List September 1994

1. Myst (Broderbund)
2. Outpost (Sierra On-Line)
3. 5 Ft., 10 Pak (Sirius)
4. Star Wars Rebel Assault (LucasArts)
5. 7th Guest (Virgin)
6. Microsoft Encarta (Microsoft)
7. Corel Gallery (Corel)
8. Microsoft Bookshelf (Microsoft)
9. Falcon Gold Flight Simulator (Spectrum Holobyte)
10. Police Quest IV (Sierra On-Line)

(Ending 9/1/94, based on unit sales at 16 retail chains, representing over 4000 stores)



Software Etc. October 1994

1. Doom II (ID/GT Interactive)
2. \$9.95 IBM CD-ROM (Point Group)
3. Myst (Broderbund)
4. \$14.99 IBM CD-ROM (Point Group)
5. 5 Ft., 10 Pak v.2 (Sirius)
6. Doom: With 24 Companion Programs (Lasersoft)
7. 5 Ft., 10 Pak (Sirius)
8. 7th Guest (Virgin)
9. Rebel Assault (Lucas Arts)
10. Interactive Encyclopedia '95 (Compton's New Media)

(Based on unit sales at 375 Software etc. stores)



Babbage's November 1994

1. Doom II (ID/GT Interactive)
2. Wing Commander Armada (Origin)
3. Myst (Broderbund)
4. Colonization (Microprose)*
5. AD&D Dark Sun: Wake of the Ravager (SSI)
6. Microsoft Space Simulator (Microsoft)*
7. Master of Magic (Microprose)*
8. NHL Hockey '95 (Electronic Arts)
9. Tie Fighter (LucasArts)*
10. 7th Guest (Virgin)

*Floppy disk title

(Based on unit sales at nearly 300 Babbage's stores)

CONVENTION CALENDAR

Listed phone numbers should put you in touch with event promoters (but not necessarily the convention site).

• **User Interface Strategies '95**
(A Live Satellite TV Broadcast)
December 13 (11 am - 5 pm EST)
University of Maryland Instructional
Television System
(301) 405-4905

• **Winter CES**
January 6-9
Las Vegas Convention Center, and
other exhibit areas
Las Vegas, NV
(202) 457-8700

• **Milia '95**
January 13-16
Cannes, France
(212) 689-4220

• **SoftExpo95**
January 17-19
San Jose Convention Center
San Jose, CA
(303) 771-2000

• **Intermedia**
February 7-9
Moscone Center
San Francisco, CA
(203) 840-5634

• **Orlando Multimedia '95**
February 22-24
Hyatt Orlando
Kissimmee, FL
(800) 457-6812

• *Compression*, continued from page 26

solution: a varying bit rate whereby different types of video are encoded according to the amount of visual change occurring in a certain scene.

Time for a Change

If all goes well with the development of HDCD, it could open up an expansive, new direction in CD-ROM software. No one knows exactly when all these changes will come to pass, but Philips is expected to finalize its technical specifications for HDCD by next Christmas. When that happens, it could usher in an entire new period in home entertainment...not just computer entertainment.

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San Diego Zoo "Animals"

Gus Goes to Cybertown



CD Game Pack

Four Footed Friends (ZoomBooks)

Stradiwackius (VroomBooks)



Travel Companion



U.S. Atlas

World Atlas



Space Shuttle



Reference Library



Capitol Hill



20th Century Video Almanac

- The Best of Our Century

20th Century Video Almanac - People

20th Century Video Almanac - Sports



Journey to the Source

Introduction to the PC & DOS



And Shell CD-ROM Library

Safe, Compact & Portable

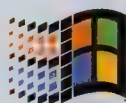
Storing up to 40 discs, the COMPRO Shell is designed so that nothing touches the recording surface. The carrying handle locks the unit together for secure transportation.

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You can access a specific CD by sliding the indicator to the desired number and just opening the top!

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In Brief... SOFTWARE

-459 Degrees Fahrenheit

Domark's made their share of flight sims, but this one's out of this world...literally. *Absolute Zero* is set in 2374 with intergalactic miners doing battle with extra-terrestrials. You get to choose which



Have you ever ridden through space in a Crabcar? You will — in *Absolute Zero*.

side you fight for, as well as what you drive. (There are 12 different vehicles from which to choose. We like the pincer-toting Crabcar.) The product is available for DOS (\$54.95) and PowerMac (\$49.95) platforms. Domark...(415) 513-8929.

Multimedia Moses

No movie star's career has been as closely associated with the Bible as that of Charlton Heston. Now film-dom's Moses is featured in *Charlton Heston's Voyage Through The Bible*. The two-disc set (one for each testament) will feature Mr. Heston's dramatic renderings of



Charlton Heston's first interactive epic will be a double disc Voyage Through The Bible.

Bible stories, tours of the Holy Land, and collections of religious art and music. The CD-ROM (Mac or Windows) is expected to arrive by Christmas '95. Jones Interactive...(310) 574-5444.

Newsline is compiled and edited by Phill Powell.

OLYMPIC EFFORT

You have to hand it to Sports Electronic Archiving Multimedia. In just over a year, the small software developer, founded in October 1993, has bagged one of the world's premier licenses: The Olympics. SEA, centered in Israel, has been granted an exclusive license from the International Olympic Committee and the United States Olympic Committee to author a CD-ROM covering 100 years of the Olympics.

The unnamed title, which will cover the Summer Olympic games only, is slated for a Fall '95 release. SEA plans to create versions of the product in several languages. The CD-ROM will begin with the 1896 games in Athens, and cover the four-year tradition through the '92 games of Barcelona. SEA is planning to have an updated version of the disc ready in

October 1996, which will contain highlights from the Centennial Olympic Games to be held in Atlanta.

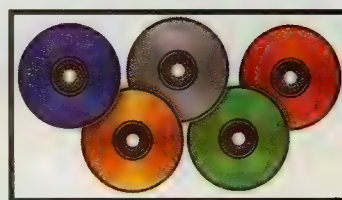
Olympic fans will find biographies of medal winners, game highlights, stats, and audiovisual video footage of Olympics past. The IOC has

"This CD-ROM will provide an interactive history lesson of the greatest moments in Olympic sports that every family member can learn from and enjoy."

**—John Krinsky
Deputy Secretary General,
Interim Executive Director
United States Olympic Committee**

given SEA access to the IOC Olympic Museum in Lusanne, Switzerland, while the USOC invited SEA into its Colorado Springs archives.

Apparently, all parties are excited about the disc. "We are pleased that this CD-ROM project developed by SEA will enable many people around the world to experi-



ence the Olympic Games over the past 100 years and provide an educational and entertaining insight into sport and Olympism," says Michael R. Payne, IOC Marketing Director. An USOC counterpart, Deputy Secretary General John Krinsky, agrees: "The opportunity to integrate 100 years of Olympic Summer Games with new technology is very exciting because it brings our Olympic history to life."

The Olympic powers that be must realize SEA's sincerity, evidenced by their research and development budget for this project. When all is said and done, SEA will have spent a cool million on bringing the Olympics to computers around the world.

MANEUVER\$

- Should your channel-surfing land you on an infomercial for **Apple Computer**, don't be alarmed. It's simply a new means of marketing Apple's Performa line. The half-hour infomercial, "The Martinettis Bring Home a Computer," shows a three-generation family putting the new Performa through its paces. As you might expect, commercial breaks are used to encourage home viewers to phone in for info kits. The infomercial is playing in major markets and national cable programming.

- For a company that rose to fame as a book publisher, **Random House** has been showing considerable interest in multimedia lately. First, they acquired an equity stake in the alliance between **Legend Entertainment** and **Del Ray Books**. (Interactive sci-fi software is the goal of that relationship.) Random House came in on the deal as a minority investor, and shortly thereafter announced a co-publishing agreement with **Humongous**

Entertainment. Random House and Humongous will collaborate on a series of titles called *Junior Encyclopedias* aimed at children aged 3 to 8.

- Another publishing force is experimenting with a new bundling technique, this one teaming books with CD-ROMs containing similar content. **Meredith Books/Better Homes and Gardens** and **Multicom** have issued the first three titles: *BH&G Complete Guide to Gardening*, *BH&G New Dieter's Cookbook* (with *Healthy Cooking CD-Cookbook*), and *BH&G Incredibly Awesome Crafts for Kids* (with the CD-ROM, *Cool Crafts*). \$59.95 is the package price. Interestingly, each are sharing the distribution chores: Better Homes and Gardens will sell to bookstores and libraries, while Multicom will move the packages through traditional software outlets.

- Packard Bell** has entered into a distribution agreement with **Intelligent Electronics**, and is creating a special

product line to be promoted through the arrangement. The eleven computers in the Executive Series line are split between seven multimedia models to be distributed in retail and channels, and four models designed for commercial applications. Intelligent Electronics' network of resellers numbers over 2200.

- New Kids on the Block**: the ever-burgeoning multimedia industry will see added competition from the following newcomers...

- Multimedia author and classical music man Robert Winter has formed **Calliope Media** with executive Jay Heifetz (formerly of **Paramount Pictures**). Calliope will be producing arts and humanities software.

- Former members of **ICOM Simulations**, **Warner Bros. Interactive**, and **Sunsoft** have come together to form **TerraGlyph Interactive Studios**. The developer's first products will concentrate on edutainment.



Interactive Movies? There's Hope



I used to see a T-shirt worn around Hollywood that read, "But I really want to direct." From actors and screenwriters to camera operators and grips, it seemed that everyone who worked in movies

wanted to be a director. And why not? On the set of a major film, the director controls a crew of a hundred or more people, all of them doing exactly what the director wants them to. In the film-making pantheon, the director is the *auteur*, the person with the big vision and a lot of power.

It's heady stuff. Maybe that's why so many new computer games are being billed as "interactive movies," with directors rather than designers, and why game developers have borrowed phrases like "production value" and "suspension of disbelief" from the film business. It's possible because multimedia computers now have the ability to play good-looking digital video, and because CD-ROM offers the capacity to put an hour or more of video on each disc. Multimedia games are now becoming Hollywood-style productions, with Hollywood-style budgets in the millions of dollars to match.

To a movie person, "production value" refers to the quality of the images on the screen, including the acting, sets, lighting, camera work, and visual effects. And games that use moving, talking video look very impressive, but they can wind up being more movie than interactive. Too many adopt the *Dragon's Lair* model of interaction: the game is a linear sequence of video clips with occasional decision points, where you choose whether to go left, right, straight, or jump. If you make the wrong decision, you're dead and the game starts over. But when a game is based on a CD-ROM full of live-action

video, it's hard to make it respond to user input with a degree of realism that matches the visuals.

In a cartoon like "Beavis and Butthead," the director can put the same drawings over a different background and get a laugh every time — or not, depending on your sense of humor and level of maturity — but it's very hard to reuse video without it looking spent the second time around. The more realistic a video clip, the more inappropriate it will look in another context; so interactive movies with complex, branching story lines need plenty of video to cover all the possible plots and variations. That's probably why games like Origin's *Wing Commander III* and Access Software's *Under A Killing Moon* have established a new level of quantity: they each come on four CD-ROMs.

Game designers also talk about "suspension of disbelief,"

usually to explain why games need to be increasingly realistic-looking, and also bigger and more expensive to produce. But the original phrase is "willing suspension of disbelief," and the distinction is important. Movie audiences know that a screenwriter made up the story, that the city street they're seeing is probably on some studio back-lot, and that those people are really actors, but they're willing to forget all

Good game play or slick interactive video? The jury's out — but early signs suggest the two are not mutually exclusive.

that as long as the director abides by the rules of storytelling.

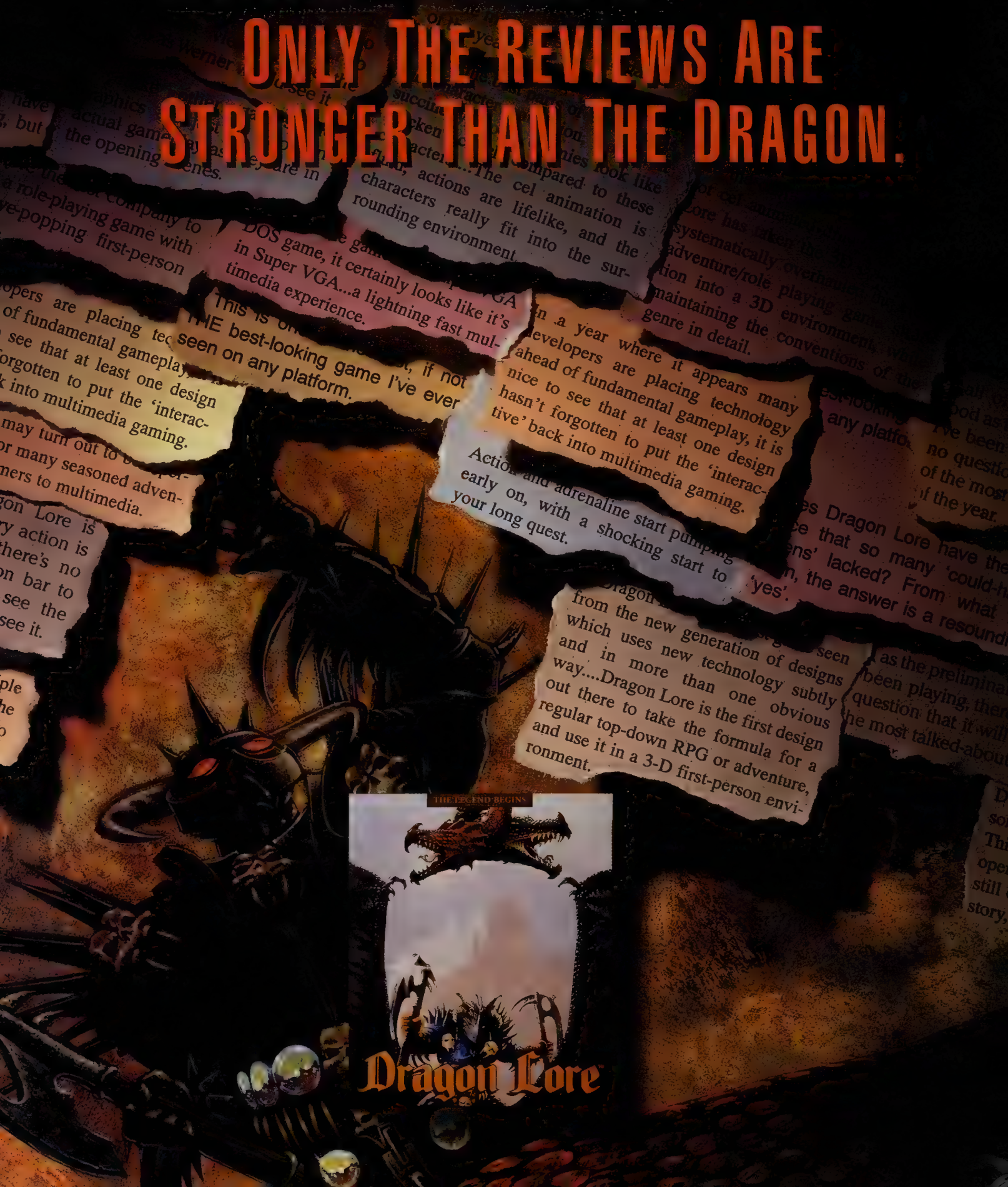
A movie doesn't have to be realistic, just consistent. Audiences are more willing to suspend their disbelief for a good cartoon than for a live-action film with a faulty plot. Game players make a similar deal with game designers: they're willing to accept unrealistic premises and blocky graphics if a game plays fair, is engaging, and gives them control over their fate. Beautiful video and well-known actors can't make up for weak interactivity.

But maybe it doesn't have to be an either-or proposition. Developers know that truly interactive movies require new gaming models, richer interaction, and more flexible ways of using digital video. Some of the most ambitious projects are still in post-production, but *Under A Killing Moon* is out, and it's drawing positive reports. Perhaps we can look forward to CD-ROMs that truly combine the compelling interactivity of computer games with the rich, realistic visuals of movies.



THE NEW MINDSCAPE® PRESENTS DRAGON LORE™

ONLY THE REVIEWS ARE STRONGER THAN THE DRAGON.



DOS game, it certainly looks like it's in Super VGA...a lightning fast multimedia experience.

This is one of the best-looking game I've ever seen on any platform.

Action and adrenaline start pumping early on, with a shocking start to your long quest.

Dragon Lore is the first design from the new generation of designs which uses new technology subtly and in more than one obvious way....Dragon Lore is the first design out there to take the formula for a regular top-down RPG or adventure, and use it in a 3-D first-person environment.



Dragon Lore



The new Mindscape® presents the graphic adventure that transports you into a whole new dimension: Dragon Lore, created by the developers of MegaRace™.



Dragon Lore gives you full screen 3-D graphics and animation that lets you view anything from various angles.



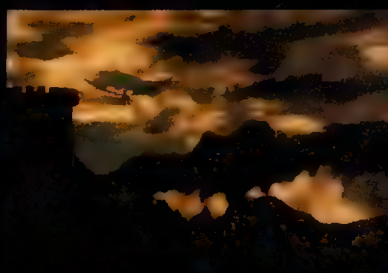
It's "first person" and interactive, and the game actually adapts to what you're doing.



Raise your sword to destroy your enemies, or attempt to solve the gruesome challenges in a more intelligent way. You decide.



Beyond technically amazing, the game play will keep you devoted to conquering the unleashed evil.



Sound effects laced with grisly screams keep you riveted to the action.

In a quiet valley protected by the DragonKnights, your father has been murdered by a traitorous knight who has vowed to destroy your family. Now you must regain your legacy and seek vengeance. Awaiting you are magic spells, vicious combat, intriguing puzzles, and sinister creatures that dwell in this lost domain. There's never been anything like it. For centuries. Only the new Mindscape® could do it this well.

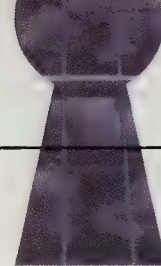


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Formerly The Software Toolworks

Formats 3DO, and IBM® CD. System Requirements For IBM CD-ROM: • IBM 386 MHZ (486 recommended) • 4 MB of memory • MCGA or VGA (256 color) graphics card • MS-DOS 3.0 or higher • Hard Disk • CD-ROM drive 150 KB/second transfer rate minimum (double speed recommended) • Mouse required • Sound Card (Sound Blaster® Adlib™, Pro-audio™, Spectrum, LAPC-1). Copyright © 1995 Cryo Interactive Entertainment. All rights reserved. Copyright © 1995 Mindscape, Inc. All rights reserved. Dragon Lore is a trademark of Mindscape, Inc. 3DO, the 3DO logos, and the Interactive Multiplayer are trademarks of the 3DO Company. IBM is a registered trademark of International Business Machines Corporation. All rights reserved. All other product names are the trademarks or registered trademarks of their respective holders and are hereby acknowledged.



Accelerated Video = Faster Windows



Last month, we saw how adding just 4MB of RAM can greatly improve Windows performance. The next thing you can

do is replace your video card. With a newer card, you'll be amazed at the difference in the way Windows performs. Video cards have come a long way since the early '80s, the days of four-color 320x200 CGA. EGA (16 colors, 640x480) was a vast improvement, as was IBM VGA with 256 colors at 320x200 and 16 colors at 640x480. The latter is Windows' default video mode, its least common denominator. VGA was enhanced with Super VGA (SVGA) and resolutions of 800x600 and beyond to 1024x768.

Each increase in resolution and color required more memory. The original CGA card required only 16K of video RAM. Some high-end video cards now permit 16 million colors (TrueColor) at resolutions up to 1280x1024, requiring four megabytes of video RAM.

Why so much RAM? With standard video cards, the microprocessor draws graphics by storing numbers into the video card's RAM. In 256-color mode, each memory location represents the color of pixels on-screen. With TrueColor, it takes three memory locations for

each pixel. When drawing a rectangle, Windows draws it a dot at a time by storing values in the video card's RAM. Rectangles are simple, but arcs or circles require trigonometric calculations. To display a picture, the microprocessor transfers values from computer memory to video card memory using a technique called BitBlt (for Bit Block Transfer).

While the microprocessor is busy drawing graphics, it has less time for everything else, so adding the complexity of a graphical user interface is enough to make a fast 386 DOS machine into a mediocre Windows computer.

A graphics accelerator can relieve the burden. The card contains its own specialized microprocessor that's optimized for drawing lines, circles, patterns, and BitBlt image transfers.

Coupled with driver software that intercepts Windows GDI (Graphics Device Interface) routines, these cards can instantly upgrade the apparent speed of your computer. Putting a fast video card in a '386 can make it work like an unassisted '486, and can make a '486 feel like a Pentium.

Most graphics accelerators are designed for VESA or PCI local bus computers, since the microprocessor can access the RAM on the video card directly. However, accelerated cards bypass this type of access for many operations anyway, so you can add effective (and inexpensive) graphics-accelerator cards even to PCs with standard ISA card slots.

Graphics acceleration is standard in most new computers, and is practically a requirement for effective multimedia. Some new video cards take special advantage of the Microsoft/Intel DCI standard for direct video access. Coupled with a Pentium, these cards allow full-screen video playback without specialized hardware such as an MPEG decoder.

You can pay from under \$100 to over \$1,000 for a video card. The best (for now) are Diamond's Stealth 64 and ATI's Mach64 boards, which use a 64-bit wide path from video RAM to the specialized acceleration chips (although microprocessor access is still only 32 bits). Their use of dual-ported VRAM means that data can be read from and written to video RAM at

the same time, although clever DRAM designs now offer nearly the same performance at a lower cost. I've found that less-expensive cards (such as the Boca Voyager and STB Lightspeed) provide plenty of bang for the buck. Many \$100 cards offer better performance than last year's \$400 cards.

Three-dimensional graphics accelerators are the next frontier. Microsoft is already developing new 3-D interface designs which go far beyond the "chiseled" metal look that's currently popular. Instead of clicking on a raised button, you'll directly grasp and manipulate seemingly real objects as you move within a 3-D simulated world.

All of this will be a far cry from today's 2-D metaphor of paper documents and flat videos, but as we become increasingly reliant on multimedia communication, the 2-D framework will become more restrictive. Just as black-and-white printing is fast becoming obsolete with inexpensive color inkjets and color laser printers, so too will 3-D graphics accelerators bring new ways of working — we won't remember how we ever did without it. ☺

Graphics accelerators provide monumental relief to your CPU — and they're practically a requirement for effective multimedia.

Fisher-Price CD-ROM software makes your child and your computer fast friends.



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Fisher-Price Sing-
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Specially developed for Fisher-Price by Davidson & Associates, the leading designer of children's educational software, these interactive



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first-learning tools introduce your child to a captivating world of music, graphics, magic and adventure. At the very




Fisher-Price Dream Doll House

same time, making all the fun a memorable learning experience.

All with just a click of the mouse.

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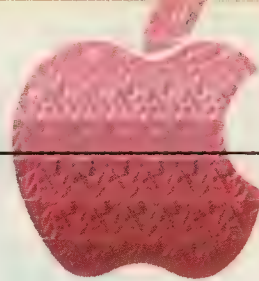
For a FREE Davidson Preview CD or for more information, call 800-545-7677 ext. 640. (In So. CA call 310-793-0600.) Hurry! Supplies are limited.

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Faster Than a Speeding Bullet



Slow. Sluggish. Glacial.
Ever use those words to
describe your CD-ROM
drive? Even 3X and 4X
drives are candidates for

the storage device Snail Award. You've probably accepted that CD-ROM drives will always be pokey — it's just the way they're designed. But if there's one lesson the computer age teaches us, it's never say you can't go faster. So be prepared for CD-ROM drives that will leave hard drives in the dust. So says Peripheral Land Incorporated (PLI), a well-known Mac mass-storage manufacturer. PLI will be happy to send a 15-speed CD-ROM drive your way — if you can afford it.

PLI has been a leader in Macintosh removeable storage since 1985, just a year after the Mac itself was launched. Recently the company began shipping fast SCSI-array hard drives, the kind multimedia developers use to store mass quantities of digital video. Now PLI is applying that expertise to CD-ROM drives. According to PLI's product specialist, Patrick McDermott, the company's new QuickCD 15X runs 15 times faster than a single-speed drive. It will work with any computer sporting a SCSI interface, including Macs and PCs, and is compatible with all current CD-ROM standards: High Sierra, ISO 9660, XA, multisession PhotoCD, CDI, Video CD, and audio CD.

The drive itself is a standard Toshiba double-speed drive — but the bronto-sized hardware cache is another story. "Our proprietary caching controller has at least 32MB in there," claims McDermott, hinting that in fact there are a lot more megabytes in the cache than he is willing to say. "The controller is transparent, so it still looks like a Toshiba drive to the Mac. Our hardware caching routine, which gets going the moment you pop in a disc, produces a sustained 2.5MB data transfer rate and 10 millisecond access times, without any caching software."

By comparison, the typical double-speed drive transfers

data at around 300KB per second — 8 to 9 times slower than the QuickCD 15X — and has access times of maybe 280 milliseconds, 28 times slower. A typical hard disk accesses data at about the same speed, but transfers data at half to three-quarters the rate.

McDermott adds, "CDs don't have to be optimized to work with this system. Just a put a CD in there and it will start working." If the QuickCD 15X lives up to PLI's claims — and I haven't been able to test one myself — every CD you put into the drive will show dramatic improvements in speed and responsiveness that go far beyond what can be achieved with software caching.

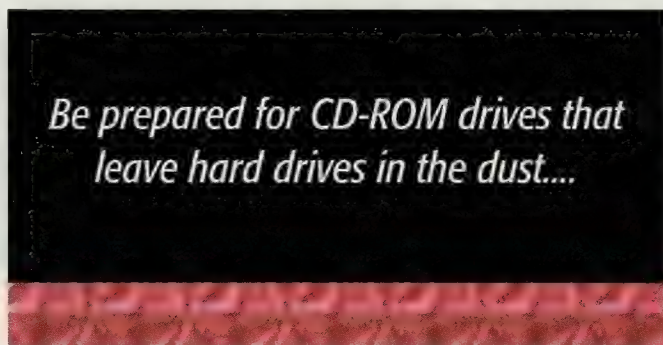
CD-ROM has everything going for it as a storage medium: the discs are really cheap to manufacture, they store a lot, and they are stable and hard to damage. Only low speed and the need for even larger capacity have held CD-ROM back from complete dominance as a storage medium. Those walls are about to fall. Last spring, IBM demonstrated a disc technology that imprints ten layers of microscopic laser dots on a single CD, yielding six to seven gigabytes of storage, ten times the maximum current CD storage capacity. When the process is commercialized, a single CD could contain the text of four

thousand 400-page books, or the entire 12 video hours of *Roots*.

Monster-caching schemes like PLI's knock down the other wall: the speed to access all that information without delay. What will super-fast CD-ROM drives mean? Games that will sport real-time video and animation, of course. But the possibilities are greater: Full-screen movies on disc without external MPEG hardware. More

applications shipping on, and running directly from, CD-ROMs. More magazines on CD-ROM. If PLI creates a writable version, which it hints it may do, other removable storage media will be history. Bring down the drive price to under \$300, and video-games, laserdiscs, CDI, and maybe even VCRs will go the way of the Great Auk.

So when can you get your hands on one? PLI should be shipping the drives now. The company offers an introductory price of \$995, which will later go up to \$1295. If you're not a power-user with deep pockets, you may want to wait until the consumer-priced (under \$600), IDE-based unit is released, about six months after the SCSI model. For more information, contact PLI at (800) 288-8754, 8-5 PST.



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Product Information Number 127



Up The Creek (Walnut Creek, That Is!)



There are few shareware distributors who cater to such a wide variety of tastes and operating systems as Walnut Creek.

You're bound to find a CD-ROM that interests you in their new catalog.

Got a yen to try the Yggdrasil Plug-and-Play Linux, a UNIX-like 32-bit system? WC can supply everything you need on CD-ROM (\$39.95). Want something to run on your NEXTSTEP computer? WC has discs full of useful stuff: NEBULA for NEXTSTEP (\$59.95) and Nova for NeXT (\$39.95). There are also titles available for FreeBSD 2.0 (\$39.95), Sprite (\$29.95), and a Toolkit for Linux (\$39.95). The GEMini Atari CD-ROM (\$39.95) is packed with files for the whole line of Atari computers. And OS/2 fans are catered for with the Hobbes Collection (\$39.95), which is a disc-based copy of the largest internet ftp archive of OS/2 material.

If some of this sounds like a foreign language to you, don't worry — DOS, Windows, and Mac users will find plenty to please them in Walnut Creek's latest catalog. Let's take a quick tour through a few of their new shareware titles.

DOS diehards are well served by a two-disc set of 10,000 files on the latest Simtel collection (\$34.95). Stuffed full of utilities and applications, it'll take you hours just to browse through the index of this compendium. Many of the files include source code, so it serves as a learning tool for anyone interested in writing their own programs. There's a sub-directory full of CD-ROM utilities which should interest readers of this magazine. And a terrific cache of NotaBene add-ons, extras, and information for fans of that legendary word processor.

Another disc that's sure to please DOS users, although it does contain some Windows material, is Libris Britannia, Issue 3, a huge gathering of files from the Public Domain and Shareware Library in England. Many of the files originated on U.S. boards, but others, like a county cricket game, are partic-

ularly (some might even say, peculiarly) British. What makes this disc especially attractive is that it comes bound into the back of its own 130-page booklet of program details.

The Center for Innovative Computer Applications maintains the largest ftp site of Windows programs on the Net, and you'll find more than 600MB of these files on WC's CICA for Windows (\$29.95), including tools, shells, diagnostics, utilities, games, fonts, icons, bitmaps, communication programs, and source code. This is a one-stop bargain bin for some of the best Windows material. In fact, so many new files appear so quickly, and others are updated so often, that WC issues a new CICA disc every three months.

Walnut Creek distribute several discs for Mac owners. The Garbo CD-ROM (\$29.95) encompasses both Mac (135MB) and PC files (335MB). It is a dual format disc that, like many of the WC titles, is BBS ready. Info-Mac IV (\$49.95) has already been mentioned in an earlier column — it's jam-packed with the latest programs from the Stanford University Mac site. And for hours of fun, Mac users will want to lay their hands on

Ultra Mac-Games (\$39.95), which runs the gamut from early arcade-style classics to the latest strategy adventures and brainteasers. You'll be pleased to know that games run straight from the disc.

The new WC catalog also includes some interesting specialist discs. One CD-ROM, for example, is packed with nothing but text processing tools (mostly shareware) for East Asian languages (\$39.95), while another is devoted to modem-related software, Kirk's Comm Disc (\$39.95). They have also gathered a

bushel of astronomy, electronics, and engineering files onto a single disc, The Scientific and Technical Library (\$39.95). And — graphics fans, take note — Walnut Creek is releasing quite a few collections of royalty-free picture galleries, like Visions, Travel Adventure, and GIFs Galore (\$39.95 each).

One disc that could prove especially useful is the on-disc catalog The CD-ROM of CD-ROMs, a database of more than 5000 titles currently available on CD-ROM, together with 600+ reviews, samples, screenshots and more. You can purchase this helpful guide for \$39.95, or get it free with an order of two or more discs from WC. Veterans are sure find something to please them in this flood of new and updated titles, while shareware newcomers can safely get their feet wet in Walnut Creek.

You can contact Walnut Creek at (800) 786-9907, fax them at (510) 674-0821, or e-mail them via orders@cdrom.com.



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Ultimedia

Creating Your Multimedia Dream Machine

Hardware choices are always tough. We're going to make them easier. After talking to multimedia software developers and then putting every major hardware component — from motherboards to monitors to mice — through its paces, we've put together a dream list to create the ultimate multimedia PC system.

DAVID L. GARDNER

You need to shop around to find perfection.

While standard multimedia upgrade kits and prepackaged systems suit many folks just fine, joystick jockeys, power users, and — ultimately — the average user will at some point demand more. We wanted a short yet thorough list of the ultimate hardware components (sorry, Mac owners, this article is for the Windows/DOS user). So we went to the experts: multimedia developers who know what kind of hardware it takes to make their titles shine.

But we kept your budget in mind while making our selections. For example, while the NEC MultiSync 17XE monitor is technically superior to our Ultimate choice, we felt the

added features didn't justify its \$1100 price tag. Our selections reflect top-of-class products, but they stay grounded, some will argue just barely, in financial reality.

We looked at every major hardware component of interest to the multimedia computer user. Whether you're looking to upgrade a piece of your current system or dreaming of building a killer system from the ground up, our "ultimate checklist," included in each section, will tell you the features you should be demanding.

To be included in the testing process, a hardware component had to be recommended by our experts or had to offer the features and specs referenced by our experts for the appropriate category.

Final selection was made by weighing the features and price against our experience while using the product. We ran a test suite of both DOS games and Windows multimedia CD-ROMs with all of the hardware configurations. While we used some benchmarking software informally to confirm our impressions, our choices and recommendations are ultimately subjective, based on our experience as Windows/DOS users.

"If there's one thing I'd recommend, it's to buy the very best hardware you can afford," said Andy Hollis, a senior game producer at Origin Systems. Andy's right. What's "ultimate" today will be merely adequate tomorrow...but it's far better to be adequate than obsolete.

MOTHERBOARD

Ultimate Checklist:

- ✓ Intel Pentium-90 (or higher) with 256K (or larger) external cache
- ✓ PCI Local Bus with Intel "Neptune"
- ✓ Chipset
- ✓ Plug-and-Play ready/Flash BIOS
- ✓ 16MB RAM
- ✓ On board I/O (disk, serial, parallel)

If the CPU is the heart of a system, the motherboard is the brains and the body. We recommend a CL local bus, which is faster than the competing VESA local-bus standard and seems assured to become the next standard. Also, make sure your board has an Intel "Neptune" chipset controlling the system bus. A number of motherboards use an "Opti" chipset, which is reportedly slower than

Neptune systems by about 10 percent. Start out with or move up to 16 megabytes of RAM or more.



First Choice:

Pentium 90 16MB Micronics Motherboard

Street price: N/A

Our test board had 2 serial ports, an enhanced parallel port and enhanced IDE (see "hard drives") support on the board (freeing up slots).

Micronics was the only motherboard manufacturer mentioned by name by any of our experts, a feat in

itself. "Micronics has been around forever. They make quality boards, unlike some of these no-name off-shore boards nowadays," said one expert. Micronics makes motherboards for companies like Gateway and Dell. While not all the systems made by those manufacturers use Micronics motherboards, a lot of them do.

If you want to know whether the system you're looking at uses a Micronics motherboard, just ask. If they won't tell you, try and get a look inside the machine. You might spot the "Micronics" name silk-screened along the back edge of the motherboard.

Also Recommended: Intel motherboards

KEYBOARD

Repetitive stress injury may be an overblown topic, but our two "new age" keyboard recommendations feel great and look cool. They take a little getting used to, but the adjustment is well worth it — they make typing a pleasure.



First Choice:

Microsoft Natural Keyboard

Street price: \$90



If you don't mind a "mushy" key stroke, the Microsoft Natural Keyboard is incredibly well laid out, with a split keyboard and back-sloping design that does indeed feel "natural" on the hands.

Also Recommended:

Lexmark SelectEase

Street price: \$170



If you prefer the solid "click" of the old Selectric and want to adjust the "shape" of the keyboard yourself, the SelectEase lets you position the two halves of the keyboard any way you like.

VIDEO CARD

Ultimate Checklist:

- ✓ PCI Local Bus
- ✓ 64-Bit acceleration
- ✓ 2 Megs VRAM
- ✓ Strong Windows Acceleration

Matrox, Diamond, and ATI cards were all recommended by our experts. The combination of 64-bit hardware writing to fast "VRAM" (video RAM) over the PCI-local bus knocked our socks off. For DOS performance, we tested the cards with Origin's System Shock and Pacific Strike. A suite of video- and graphics-intensive CD-ROMs revealed the boards' Windows performance. The video card is one of the bottlenecks in the system that can seriously impact overall performance — if you're going to skimp, don't do it in the video department.

First Choice:

Matrox MGA Impression Plus

Street price: \$440



We've gone out on a limb by recommending a card whose VGA DOS performance benchmarks at the bottom of the pack. Why? On a

Pentium system, the board's significant DOS VGA shortcomings are hardly noticeable, except in a few older games. And multimedia's future on the PC rests in Windows 95, not DOS. The MGA Impression Plus is a Windows screamer with a feature set and expandability currently unmatched by the competition.

Some of our experts believe that 3D

graphics-acceleration hardware will soon be as in demand as fast video performance — this board does both very well. In fact, this is the first consumer-level card to incorporate built-in real-time 3D acceleration hardware. The board is bundled with a CD-ROM containing 3D games and demo software that will whet your appetite for the visually stunning world of fast 3D rendered graphics on the way.

The card also adheres to a new video-bus expansion standard. Impression Plus owners will be able to add a wide range of enhancement options, such as hardware-accelerated full-screen, 30 fps video to this new expansion bus. Very cool.

Also Recommended:

Diamond Stealth 64

Street price: \$315

The Diamond Stealth 64 offers a terrific combination of fast Windows performance and top-notch DOS VGA performance. The Diamond Stealth 64 is also the least expensive on our recommended list and is a bargain by any measure. "The Stealth has been the card to use for a long time, and it's still the card I use," noted one software producer.

ATI Graphics Pro Turbo

Street price: \$380

ATI's latest and greatest board has garnered "A" reviews in the business press. Unfortunately, ATI was unable to provide a review unit of this board in time for a proper review. Despite our inability to test this board, it was recommended repeatedly by our experts.

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SAFARI

SAFARI

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LEARN

Ms. Principle teaches important new vocabulary words. Learn them in four languages, too!

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SING

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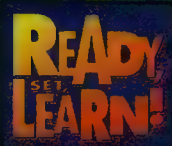


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MONITOR

Ultimate Checklist:

- ✓ Multiple frequency/synching
- ✓ 1024x768 non-interlaced
- ✓ 17" diagonal viewing area

Part of the reason people still pay to go to the movies is that big, beautiful screen. Multimedia lovers can enjoy their own big-screen experience at home by stepping up to a 17" monitor. Why not go all the way to a 21-inch? "They're just too big," noted David Sears, a senior designer working on a still-secret project at Virgin Interactive Entertainment. "I find too much pixelization on a 21-inch monitor, even at high resolutions," said Sears.

First Choice:
Orchestra Tuba

Street price: \$650

The Tuba foregoes extensive controls in favor of an unbeatable price and solid



you turned up the brightness. The Tuba also supports a 1600x1200 non-interlaced resolution mode, the highest resolution support of the three monitors we tested. The other two are limited to 1280 x 1024 operation. While there are few applications today that call for this super high-res operation, you'll be ready for them tomorrow with a Tuba.

Also Recommended:**Mag Innovision DX17F**

Street price: \$729

The DX17F offers more controls than the Orchestra Tuba, but there was a washed-out quality to the colors on the screen. Regardless of the various brightness and contrast control settings we tried for the DX17F, the Tuba images looked more vibrant. That sticking point aside, the DX17F's additional controls allow you to preset various preferences for different resolutions, then switch to those settings with a touch of a button. Another nice feature of this monitor is its generous three-year warranty.

NEC MultiSync XE17

Street price: \$1070

"MultiSync, MultiSync, MultiSync," intoned one of our less-eloquent experts, apparently a fan of NEC's monitors. It's only the unit's high price that kept the 17XE from grabbing top honors. If money's not a problem, here's what you'll get with the XE17: top quality with lots of pinpoint control. The XE17 has an onscreen control panel that lets you set and adjust just about everything. It's also the first "plug and play" compatible monitor, which means that in the future the monitor will "talk" to your graphics card and configure itself. Add an anti-glare, anti-static (they do) screen and you've got an incredibly nice, and really expensive monitor.



operation. During testing, the Tuba displayed rich, fully saturated colors that didn't "bleach out" too heavily when

CPU

Ultimate Checklist:

- ✓ Intel Pentium 90 or higher

First Choice:**Intel Pentium 90**

Sure, there are 100-MHz Pentium systems lurking out there, but so far they're still hard to find and overpriced. Intel's monopoly on the x86 architecture may well evaporate next year with the roll-out of some new "super chips" from competitors such as AMD and Cyrix, but for now, Intel's Pentium remains the sure bet.





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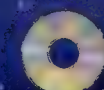


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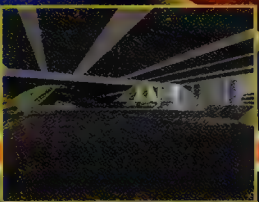
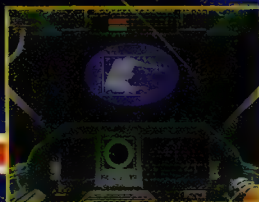
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CD-ROM DRIVE

Ultimate Checklist:

- ✓ Quad-speed operation

The fact is that in terms of access times, quad-speed drives generally don't fare that much better than their older double-spin cousins. When it comes to playing video, however, the quad-speed edge becomes very apparent. Quad-speed, or 4X, drives can deliver more KB per second — the end result is no dropped frames and very smooth video. Given the prices of the entry-level quad-speed units, like the NEC 4XI, there's no reason for a multimedia connoisseur not to go quad.

All the units we tested use a SCSI interface. Manufacturers often build in the cost of a SCSI adapter, but the prices we've listed here are for units without a SCSI adapter. If you already have a SCSI adapter, make sure you don't unnecessarily pay for it again. A good SCSI adapter from Adaptec (recommended) will run about \$150, but you'll pay less if you get it as part of a drive kit.

First Choice:**Dynatek CDS654**

Street price: \$499

The Dynatek CDS654 is an external drive, and is one solid piece of work. The CDS654 features a cooling fan,



which should help prolong the drive's life and a big 1MB cache of built-in RAM. All the



nice features are here, including headphone jack and volume control on the front panel. There are also RCA output jacks for getting that CD audio to your stereo. The housing is more square and less deep than Plextor's longer, thinner design. We think the Dynatek footprint will fit more easily into more typical desktop situations. While we avoided formal benchmarking, the Dynatek drive did turn in the best results of the three CD-ROM drives we tested using a benchmarking program that we downloaded from CompuServe.

Also Recommended:**Plextor 4Plex**

Street price: \$559

The 4Plex feels terrific...solid, like a big high-tech brick. Like the other units tested here, it has headphone and volume control on the front with RCA outputs on the back for connecting the drive to your stereo. Unfortunately, the 4Plex's housing is unusually long and

deep, which might make it tricky to set up on some desktops. In terms of performance, this unit is basically indistinguishable from that of the Dynatek. The 4Plex also sports a 1MB RAM cache.

NEC Multispin 4XI

Street price: \$415

NEC's new 4XI is one of the lowest-priced quad-speeds available. The 4XI has a couple of great features which our other recommended drives lack, including an LCD status



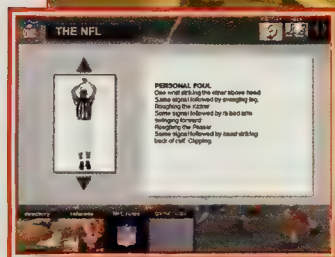
display and push-button CD player controls on the front of the unit. We recommend the 4XI for budget-minded hardware hounds. The unit's limited onboard cache of only 256K might explain why the unit scored lowest in our benchmark software tests. But our experience with the 4XI revealed that performance differences between it and the other two recommended models were so small that it could have been just our imagination. NEC bundles a copy of *Microsoft Encarta* and a demonstration CD-ROM with the 4XI.



THE OFFICIAL NFL YEARBOOK '94-'95 INTERACTIVE CD-ROM

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It's the 75th season of the National Football League and RealTime Sports is proud to introduce **THE OFFICIAL 1994/1995 NFL INTERACTIVE YEARBOOK**. Hosted by Pat Summerall, this Yearbook is a CD-ROM packed with features no football fan should be without! ★ Nearly 60 minutes of hard-hitting video footage! ★ Complete statistical information on every active player and team! ★ NFL Trivia! Test your football IQ! ★ NFL merchandise catalog! ★ The best bloopers! ★ Free On-Line Service*!



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Product Information Number 88



HARD DRIVE

Ultimate Checklist:

- ✓ Enhanced IDE with Mode 3
- ✓ Large storage capacity (500 megs and up)

Start talking hard-drive specs and even the most dedicated PC enthusiast's eyes will glaze over. Here's the lowdown. In most PCs, the hard drive talks to the system using an IDE interface, which is slow compared to the competing standard, SCSI. Over the years, the expectation of many was that SCSI would be the dominant interface of the future. The problem: SCSI is expensive and IDE is cheap. Western Digital spear-

headed the development of a new industry standard called Enhanced IDE. The end result is that data moves from your drive through your PC faster than ever, even faster than SCSI. Enhanced IDE also supports up to four drives. It also supports drives larger than the old IDE limit of approximately 500 megabytes.

"Mode 3" speeds things up even more. Just make sure your Enhanced IDE controller (preferably built into the motherboard) supports Mode 3. We won't go into technical detail here — just be aware that Enhanced IDE with Mode 3 is the best ticket for now.

First choice:

Western Digital

Caviar AC3100 (1083 Megabytes)

Street price: \$500

If the enormity of a one gigabyte drive doesn't sink in, remind yourself that you could copy an entire CD-ROM to this unit and still have almost 400 megs to play with. Western Digital gets the nod for this top quality drive at a great price.

Also recommended:

Maxtor 7546A (522 megabytes)

Street price: \$289

We recommend this smaller drive if you're sure you don't need a gigabyte.



SOUND CARD

Ultimate Checklist:

- ✓ Wavetable, General MIDI support
- ✓ Sound Blaster compatibility
- ✓ Expandable RAM capacity for new MIDI samples

Sound is the partner to graphics in the multimedia dance, so choose your partner well if you want the best possible multimedia experience. You'll want wavetable-based general MIDI music because it sounds a lot closer to "real" music than FM synthesis. Sound Blaster compatibility gives you a solid bridge to the past and present, while expandable RAM capacity gives you the ability to download your own wavetable samples into the board, a feature which may prove more meaningful with time.

First Choice:

Creative Lab Sound Blaster AWE32

Street price: \$299

The AWE32 has an amazing feature set including everything on our checklist, plus interfaces for three different makes of CD-ROMs. The collection of top Windows software now bundled with the AWE32 is stronger than our other recommendations. Many new games now support the AWE32 directly because of Creative Lab's marketing clout.

Also Recommended:

Advanced Gravis UltraSound Max

Street price: \$145

"I love my UltraSound," said one of our

experts. The UltraSound Max has no on-board MIDI patches in ROM. Instead, it stores them on the hard drive and loads different patch sets into RAM as needed, so games that support the board directly will often provide their MIDI patch set. It also supports three different CD-ROM drives. The UltraSound Max is a quality machine that can be had for a song.

Turtle Beach Tropez

Street price: \$229

Turtle Beach is known for its quality and high-end sound boards. The Tropez is Turtle Beach's first board to emulate the Sound Blaster — a must for game players. It also includes an ATAPI-style connector for a CD-ROM drive.



PC CD-ROM
IBM or Compatible

LIVE ACTION MOTION PICTURE

Drug Wars will take you through it all from small town traffickers to big city organized cartels. You will be involved with the border patrol tracking international drug runners. If your shooting skills are good enough, you'll be assigned to South America to destroy the source and capture the drug king.

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SYSTEM REQUIREMENTS : IBM PC 386sx 25 Mhz or compatible recommended. 640K RAM with VGA Monitor and 100% continuous to read, 380ms seek) Sound Blaster® or 100% compatible card • DOS 3.3 or higher. Minimum 512K RAM on video card.

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Product Information Number 86

JOYSTICK

First Choice:**Thrustmaster F-16 FLCS with Mark II WCS***Street price: \$140 (FLCS) plus \$125**(Mark II WCS)*

"Thrustmaster is the best thing out there. There's nothing that even comes close to their new joystick. I won't use anything else." This praise is from a senior producer at a major game-software developer.

Thrustmaster's latest, the F-16 FLCS, is virtually identical to what real Air Force pilots use in modern jets. The stick's rock-solid feel and multiple controls make it a killer gaming stick as well, while the WCS will add full throttle realism for flight simulation and driving games.

Also Recommended:**Advanced Gravis Phoenix***Street price: \$125*

The Phoenix has the best joystick/keyboard configuration software around. Its high quality, futuristic design make this "stick" worth serious consideration. If you aren't a flight-sim nut, the Phoenix may be a better choice than the Thrustmaster duo — and at half the price because it's throttle control is built in.

CH Products' Flight Stick Pro*Street price: \$60*

For the multimedia enthusiast that only plays occasionally but demands quality, the Flight Stick Pro is a well-built stick that covers the basics very nicely.

MOUSE

First Choice:**Logitech MouseMan Sensa***Street price: \$59*

Beautiful design (by an Italian team), a sexy shape, and a silky feel won us over.

**Also Recommended:****Microsoft Intellipoint Mouse***Street Price: \$79*

A great, comfortable shape and terrific Windows-based drivers that include "special" effects, this mouse earns your serious consideration.

MODEM

Ultimate Checklist:

- ✓ True V.34 Compatible (avoid V.FC, V.FAST, etc.)

More and more games offer head-to-head play via modem, and online services will be trying to pump "fat" multimedia content like pictures over the phone lines. "V.34" lets a modem talk at 28,800 baud and is the last stop before we all go to cable modems or ISDN.

First Choice:**US Robotics Sportster V.34 (internal)***Street price: \$329*

US Robotics comes highly recommended. Its new V.34 modem is the first on the block and garners the top spot by default. Logging on to a distant bulletin board at 28.8 felt like being on a network instead of a modem.

Also Recommended:**Boca Research V.34 28.8****BPS Internal BocaModem***Street price: \$199*

Boca was still having trouble getting its "firmware" sufficiently firm as we went to press, so we couldn't sample a review unit. But Boca has always been a bargain hunter's smart choice in modems; this is no exception.

Contact Info

Advanced Gravis Burnaby (British Columbia), Canada (604) 431-5020

ATI Technologies Thorn Hill, Ontario (905) 882-2600, ext. 1

Boca Research Boca Raton, FL (407) 997-6227

CH Products Vista, CA (619) 598-2518

Diamond Multimedia Systems Sunnyvale, CA (800) 468-5846

Dynatek Automation Systems Halifax, Nova Scotia, Canada (902) 832-3000

Lexmark Lexington, KY (800) 438-2468

Logitech Fremont, CA (800) 231-7717

Mag Innovision Santa Ana, CA (714) 751-2008

Matrox Dorval, Quebec, Canada (514) 685-7230

Maxtor San Jose, CA (800) 262-9867

Micronics Fremont, CA (800) 577-0977

Microsoft Redmond, WA (206) 882-8080

NEC Technologies Wood Dale, IL (708) 860-9500

Orchestra MultiSystems Garden Grove, CA (800) 237-9988

Plextor Santa Clara, CA (800) 4PLEXTOR

ThrustMaster Portland, OR (503) 639-3200

USRobotics Skokie, IL (800) DIAL-USR

Western Digital Irvine, CA (714) 932-5000

Multimedia Video: The Next Step



Full-motion video, the elusive Holy Grail of the CD-ROM multimedia industry, is fast becoming a reality. But there's a hardware-software tug-of-war over who gets to deliver it.

The Keystone Cops and Al Jolson singing "Mammie" share many characteristics with the video playback on the personal computer in these early days of digitized moving pictures. Jerky movement and poorly synchronized speech and lips have been delivered with all the fanfare of the advent of Cinerama.

It's no wonder users are disappointed. Once you recover from the initial excitement of watching and listening to Martin Luther King, Jr. deliver his famous "I have a dream" speech from the computer, the appeal of computer video begins to

Anne Gregor

pale. Postage-stamp size windows and pixelated graphics – sometimes indecipherable – are distinctly disappointing.

Computer video is getting a second chance. Within the next 12 months, an increasing number of CD-ROM titles will appear offering full-screen, full-motion video playback. The whole screen (640 x 480 pixels) will be filled with moving shapes and colors at 30 frames per second. In addition, the costs of hardware to decode video data are coming down, and software solutions

coupled with more powerful machines are easing the travails of video playback.

It sounds wonderful, but consumers will have to make some decisions to help their computers reach video nirvana. "If you get the fastest central processing unit, the fastest board, and the fastest CD-ROM drive, you'll get the best quality," says Louise Biggs, director desktop graphics and multimedia at IDC, a market research firm in Mountain View, California.

However, most computer owners don't have the fastest of everything. Taking advantage of state-of-the-art video means making decisions about both

1992

Multimedia Video Firsts

Important Landmarks in
Computer Video Evolution

June '92

1st Video for Windows title
Compton's Interactive Encyclopedia

November '92

**1st Indeo release (2.0) under
Video for Windows (1.0)**
based on joint Intel/Microsoft agreement

hardware and software. Down the road experts predict the two will meld, but 1995 will be a year of change...and confusion.

A year ago the choice was clear cut. Sigma Designs unveiled ReelMagic (now known as RealMagic), an MPEG (Motion Pictures Expert Group) add-on board that gives a 386 PC the ability to run full-screen, full-motion video with CD-quality audio. Nothing else matched its output. Phillips adopted the technology for its movies in the CD-I format. (One disc can hold 72 minutes of TV-standard film.)

Sigma Designs' ReelMagic set a new standard, but consumers were slow to embrace it for the PC. Radius holds the development license for the Mac platform. At an initial price of \$500 for the full kit, since lowered, the MPEG upgrade was too expensive, and there were too few titles — primarily a handful of games and reference discs — to tempt consumers into converting to MPEG. ReelMagic Lite, a less-expensive version of the upgrade kit, also emerged in '94, but developers still didn't rally. "We had hoped for an MPEG Christmas in 1994, but we expect it to happen next year," says Bill Crowe, director of technology and manager of video production at Sierra On-Line.

Administrative bickering among hardware manufacturers over standards also hampered development. "There have been shackles and chains on the market," says Rich Buchanan, director of product marketing, video and CD-ROM technology at Creative Labs, maker of sound cards and MPEG hardware. With no general standard, programmers had to

write their MPEG titles to a particular board. Creative Labs is leading an open MPEG consortium.

A lot of electrical pulses can flow in a year, and the situation today is, like the bit and the byte, simple but complicated. The arrival of faster machines like the Pentium and the PowerPC are opening the doors to software solutions for the movie-on-the-PC screen problem. On the other hand, there are a lot of 486 and 386 machines out there, and they aren't being abandoned with any haste.

A computer's configuration and horsepower is the source of the difficulty with video. Video and its accompanying audio need to be compressed to fit onto a CD-ROM. The computer then needs to decompress the data in a smooth

stream to appear on demand. Software-based codecs like Indeo and Cinepak use the CPU to perform the decompression. The MPEG standard carries out

its decompression on its own board, freeing the CPU to do other work at the same time.

Intel's Indeo software codec allows full-screen, smooth-motion playback of up to 30 frames a second (what you see on television), but only on a Pentium or PowerPC. It delivers smooth playback of a video file in a 320 x 240 pixel window on a 486-based system. Titles like IVT's *Mayo Clinic Family Pharmacist*, Microsoft's *Dangerous Creatures*, Byron Preiss' *Seinfeld Screen Saver*, and Imagination Pilots' *Blown Away* have already incorporated the latest version, Indeo 3.2. With DCI (Display Controller Interface) — additional software that leads video signals directly to the video hardware instead of

through the graphical user interface — Pentium microprocessors will push full-screen video to VHS quality. "We've seen improvements of 20 to 30 percent," says Victor Varney, director of multimedia marketing programs at Intel's Santa Clara, California base. New DCI compliant hardware, such as Diamond's Viper Pro board, easily rival MPEG for full-screen video quality.

For the consumer market, Buchanan is championing the Indeo camp. "Our research shows that people are not excited about spending \$300 to pay for additional hardware to run a limited number of titles." As 1994 was drawing to a close, he estimated the MPEG market at fewer than 100,000 units. "No one is selling the millions of cards they had hoped to," says Karen Dillon, video marketing director at Radius Inc. Buchanan expects Intel to ship at least 8 to 12 million Pentium units in 1995, compared to his "wildly optimistic" estimate of 1 million MPEG units. "For every MPEG sale, there are at least eight Indeo consumers," he says.

Despite the numbers, software developers are moving slowly into the MPEG market. "I see a gap between the base of installed computers with horsepower to run software that looks as good as MPEG," says Ed Heinbockel, president of Tsunami in Oakhurst, California. Tsunami developed its *Man Enough* title in MPEG format last year (1994). At the end of 1994, it released its first full-motion full-screen interactive live-action techno-thriller, *Flash Traffic: City of Angels*. Tsunami reckons it will ship ten DOS-based versions to every MPEG unit. "I expect the DOS/MPEG split to balance fifty-fifty by Christmas 1995," says Heinbockel.

There are enough MPEG-compat-

"We had hoped for an MPEG Christmas in 1994, but we expect it to happen next year."

— Bill Crowe, Sierra On-Line

1993

November '92

1st "official" Video for Windows title
San Diego Zoo Presents...The Animals!
(Software Toolworks)

February '93

1st feature-length movie using QuickTime 1.0
A Hard Day's Night (Voyager)

November '93

1st MPEG controller playback card
ReelMagic (Sigma Designs)

QuickTime and Video for Windows

QuickTime and Video for Windows are the wrappers that allow software developers to build simultaneous video and audio into their products. Both systems have moved forward tremendously in the last year, and are expected to make further technological leaps.

Apple released QuickTime 2.0 in November. For a time, the software had fallen behind Video for Windows in capability, but the consensus seems to be that the recent improvement means equivalency again.

QuickTime will operate on both the Windows and Mac platforms, an advantage to developers who write for both. It supports DCI and MPEG, thereby allowing full-screen video without any additional hardware. It also supports music, searchable text, and compressed digital audio. Some developers see QuickTime as an animation engine, allowing, for example, two characters to converse, while a butterfly flits through the air. Gone are the simplistic looped actions of earlier titles.

The future of Video for Windows is tied closely to Windows 95. Right now it operates as a series of extensions. With Windows 95, all the files needed to run multimedia will rest within the main system. Since the plumbing will already be there, says Jeff Camp, Microsoft's product manager for Windows Multimedia, CD-ROMs will become much closer to the "plug and play" standard everyone is looking for. Discs shouldn't need to install as many files onto your hard drive, and the computer won't have to work as hard. "Windows 95 is an overnight multimedia upgrade," says Camp.

Windows 95 is designed to support all types of video. The hope is that the new W95 graphics engine will be fast enough to draw game developers out of DOS. In a nice little fillip to the consumer, the Autoplay feature will spin the CD-ROM immediately and start the title. No icon-clicking necessary.

ible products for sale or planned from software developers like Mindscape, Xiphias, and Aris Entertainment to encourage other hardware manufacturers to impinge on Sigma Design's turf. IBM-subsidiary High Technology recently agreed to distribute a series of CD-ROMs in MPEG format using the rich library of Hollywood Select Video. Titles will include original Superman cartoons, Sherlock Holmes episodes, and Bugs Bunny.

The more manufacturers, the greater the competition. "There will be price reductions," says Warren Keeby, sales manager at VIC Hi-Tech in El Segundo, California. VIC launched its MPEG board at November's COMDEX gathering in Las Vegas.

Another half-dozen manufacturers are entering the market, partly driven by an expanding demand on the corporate side for training presentations and kiosk displays.

Jazz Multimedia of Santa Clara, California, went a step further and introduced Jakarta, a combined MPEG and graphics-accelerator board. "You have the future built-in," says Jim Anderson, Jazz' marketing vice president. "You have control over the graphics, the video, and the audio."

To add to the fray, Western Digital started shipping a special chip set, the WD9710, in the final months of 1994 for use in the most powerful PCs. The chip is designed for integration into the motherboard or a graphics-accelerator board. Using a combination of software and hardware, the chip will support the three major video/audio compression technologies, Cinepak, MPEG, and Indeo. You'll also be able to play CDI, CD Video,

and CD Karaoke under Windows.

By integrating three key elements involved in picture display systems, the chip saves money and improves efficiency, says Michael Hawkey, Western Digital's marketing manager of desktop products. "It will accelerate Indeo. The bigger the processor, the better the performance," he says. Furthermore, with this chipset installed on a Pentium, Hawkey says you won't need extra MPEG hardware to obtain MPEG quality, something the Intel folks staunchly maintain is already present with Indeo 3.2.

Then there is the eternal debate over quality of the final output. Activision

studied two versions of its top-selling *Return to Zork* game.

"People prefer the VGA version when the picture

is still. The picture is crisper," says Dave Zobel, senior software tools engineer.

"When the picture moves, people prefer the MPEG version. They peer around the back of the computer to find the VCR." Marusak finds the MPEG color looks washed out compared to Indeo at full-screen size. Other developers create proprietary datastreams to overtake MPEG.

While we ponder our next video step, manufacturers are miles ahead. The video folks are turning their attention to cheaper TV tuner cards that let you watch television on your monitor, to add-ons so that cartridge-based video games can be played on your PC, and less-expensive video-capture boards. Several years from now the public may consider those features essential. By then, we'll all be looking at a new "must-have" product. I'd place my money on virtual reality.

"People...are not sure what is happening. If a consumer feels confused, he is forgiven."

— Warren Keeby, VIC Hi-Tech

1994

June '94

1st delivery of Indeo video R3.2

November '94

1st product using QuickTime 2.0
This Is Spinal Tap (Voyager)

November '94

1st delivery of QuickTime for Windows 2.0

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CD-ROM

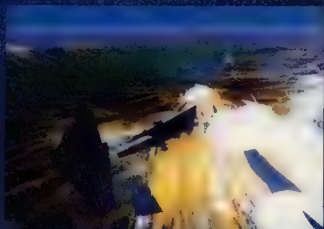
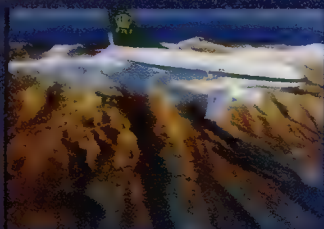
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LISTEN UP!



Multimedia Speakers Come of Age

*We went in search of the best new speakers designed for multimedia.
Here's what we found.*

Not so long ago, multimedia speakers for computer use were decidedly low-fi. Sure, they were better than the speaker in your PC, but not all that much. Your multimedia sounded more like monomedia. Game blasts certainly didn't knock you back in your chair, and when you played audio CDs through your PC speakers, it just made you yearn for your stereo.

Times have changed. Nearly all sound cards now output 16-bit audio, and many CD-ROMs have soundtracks equal in dynamic range and lush musical texture to the best audio CDs. Small,

Steven Anzovin

tinny speakers just won't do; consumers are clamoring for audiophile sound from their PCs. The major speaker manufacturers, recognizing a booming new market in multimedia home entertainment, are bringing computer sound alive with the latest speaker technologies. More than 100 new models of speakers designed expressly for multimedia PCs and Macs will be introduced this year, many of them offering greater audio fidelity than anything available just a year ago.

Multimedia Speaker Basics

Nearly all speakers create sound in the same way: by vibrating a thin membrane — the speaker cone — in response to a magnetic field modulated by electrical pulses from a sound source. Audiophile speakers usually contain at least two speaker drivers: a tweeter for high notes, and a woofer for low notes. In some designs, a midrange driver is added.

What sets multimedia speakers apart from speakers for your stereo? For one thing, they're magnetically shielded. No matter how close you put the

speakers to your PC monitor, the magnetic fields that drive your speakers won't interfere with the magnetic fields of your monitor. Also, unlike speakers for stereo systems, which draw power from an external amplifier, audiophile multimedia speakers are self-amplified, meaning they have their own built-in amp and require an external AC or DC power source. Self-amplified speakers produce higher-quality sound and can be played much louder. Finally, multimedia speakers don't use those wacky speaker-wire grippers the audio industry is still fond of; they connect to your sound card (or the speaker port in back of your Mac) via an industry-standard stereo miniplug.

Subwoofers and Tweeters And Chambers, Oh My

The big news in multimedia speaker systems is the subwoofer-based multiple driver system. These three-unit systems sport two tweeters in separate small satellite cabinets wired to the subwoofer, a massive enclosure that generates powerful lows. The satellites (which in some models actually contain mid-range drivers as well as tweeters) can be placed near your computer, while the subwoofer, which is not shielded and usually contains the controls, the amplifier, and the power unit, should be placed on the floor near a corner of the room. Freed from having to compete with woofers in the same cabinet, the tweeters output a sweet, clear sound. Once you've heard the gong-like clarity and felt the knee-knocking bass response of a subwoofer, you won't want to go back to conventional speakers.

That doesn't mean that conventional speakers aren't a good solution — and a better value — for those not in need of bone-rattling vibes. Even these speakers are showing the audiophile influence, however. Most systems feature active equalization, which adjusts the frequency response for optimal sound at any volume level. Speaker cone diameters are getting bigger, thereby outputting a bigger sound. Some manufacturers are using exotic materials like

spruce wood in their speaker cones. And designers are working overtime to devise ever-more-clever acoustic chamber designs to direct all the sound to where it belongs — your ears.

In this article, we'll look at some of the most innovative, highest-quality multimedia speaker systems you can buy. Cost is no object here — what we're after is the coolest sound around.

Advent Powered Partner 570

The jet-black, triangular Powered Partner 570s look like stealth bombers for your PC, but they make a lot more noise. With 5" polypropylene woofers and liquid-cooled 1" tweeters powered by 35 watts per channel (on AC), these weighty wedges output all the bass you could want from a conventional two-cabinet design. And the Powered Partner 570s are some of the most versatile multimedia speakers you can buy. You can power them from an AC or DC source — there's an optional battery pack — plug them into standard stereo equipment, and mount them vertically, horizontally, or on the wall. Even the logo can be rotated.

List price: \$399/pair

Altec Lansing ACS300.1

The unique clamshell design of Altec Lansing's ACS300.1 satellites may seem odd, but it makes them easy to store and easy to mount. There is a 4" woofer in each satellite (as well as a 1/2" tweeter), but the real bass comes from the heavy subwoofer with a unique, multi-path acoustic chamber design. I placed this unit on the floor under my desk, and most definitely felt the lows in my spine as they came up through the chair. The sound is precise and full at top and bottom, due to this system's wide frequency range — 35 to 20,000 Hz. Conveniences include two audio inputs (for blending computer sound with other sources, such as an external CD-ROM drive) and a headphone jack.

List price: \$350/sound system

AppleDesign Powered Speakers

Apple's newest speakers are relatively modest compared to some of the others discussed here, but their unusual, slate-colored enclosures look swell next to your Mac and deliver unusually clear, powerful sound — 14-watts-per-channel — for the price. The AppleDesign Powered Speakers II feature active equalization, rare in such a small speaker system, and dual inputs for your Mac and your external CD drive.

Approximate price: \$99.95/pair



AppleDesign Powered Speakers II

Bose Acoustimass 3 Multimedia Speaker System

This is the monster multimedia sound system, the only subwoofer-based speakers covered here that are able to fill a really big room with thunderous computer sound. I actually felt my teeth quiver when I cranked up this system. The massive air movement of the cement-block-sized bass module provides the richest, most penetrating lows I've



Bose Acoustimass 3 Multimedia Speaker System

heard from a CD-ROM. The 50-watt Bose subwoofer uses a patented air-channeling system to send waves of bass out into the room; it does not have a

driver cone. The small cube drivers contain a 2.5" tweeter/midrange cone for the highs. The whole system is so massive and well-built that it probably weighs more than your CPU. If money is no object, this is the multimedia sound system to get.

List price: \$699/pair

Jazz J707

By far the handsomest conventional speakers discussed here, and the only ones with a solid wood enclosure, the Jazz J707 speakers also feature 5" woofers, 2" dome tweeters, and 14 watts per channel for generous bass and



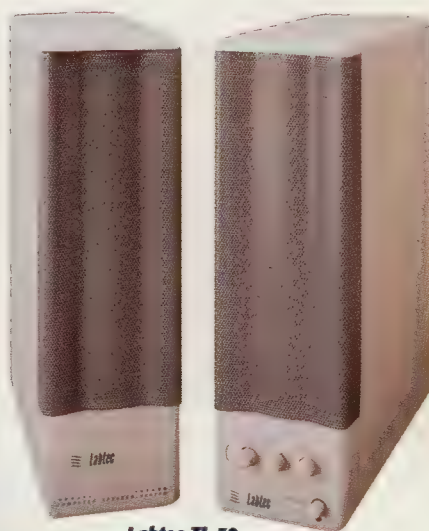
Jazz J707

midrange. Dual tuned bass ports in the front of each speaker add more depth to the lows. Many people (like myself) are partial to the resonance of speakers in wooden enclosures; if you're one of them, then these speakers are the ones to choose from the two-enclosure designs. They take up about half a square foot each, so make sure you have plenty of extra desk space.

List price: \$289.95/pair

Labtec TL 50/SB-8

LabTec sells more computer speakers than any other company, but most are small, side-of-the-monitor units with



Labtec TL 50

moderate sound quality. The company has now ventured into the audio high end with the TL-50 speakers and SB-8 subwoofers. The tall, narrow 20-watt TL-50s boost a wide dynamic range of 45-20,000 Hz, nearly at the limits of human hearing. They can be used alone or with the SB-8 subwoofer, a powerful 40-watt floor unit that's compatible with just about every speaker, sound card, and audio device on the market. This is a versatile system with many nice touches, including a volume control on the TL-50s that also controls the subwoofer. But what I like best is its vivid sound definition. There is no audible midrange coming from the SB-8, and the high range is piercingly clear, without the phase distortion common in lesser speakers.

List price: TL-50: \$179.95/pair; SB-9: \$149.95/pair

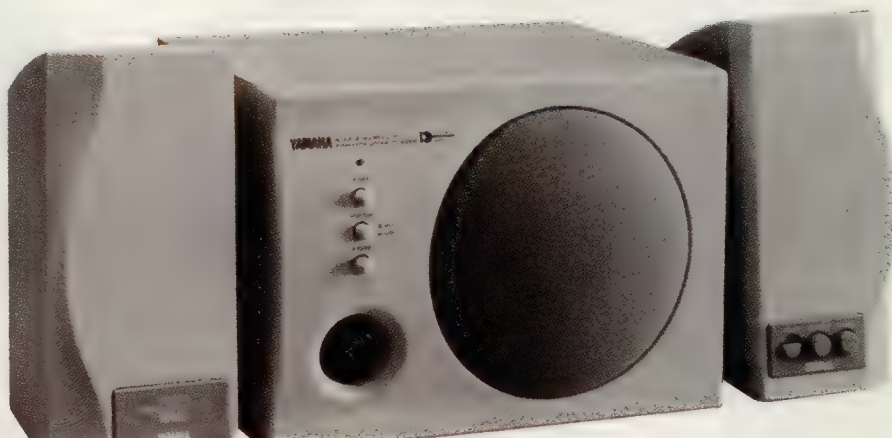
Roland MA-20 Micro Monitor

The MA-20 is Roland's top-of-the-line multimedia speaker. Its single, 5" oval-shaped driver has a warm quality that rounds off the cold, digital edge often heard in CD-ROM soundtracks. These 15-watt speakers have the most versatile controls of the lot: there are two independently adjustable line-level inputs for mixing audio sources, and a mic-level input too, making the MA-20 a good choice as a PA system for lectures and presentations.

List price: \$160/each



Roland MA-20 Micro Monitor



Yamaha YST M10

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8 Tips for Choosing Multimedia Speakers

Most people buy multimedia speakers by price, and that's a logical approach, because price is an excellent indicator of speaker quality. But price is not all there is to great sound. Keep in mind these eight key features when choosing the best multimedia speakers for your system.

- 1 Intended Use:** Are your speakers for use with games and edutainment, or do you need a sound system that can rock the hall at your next presentation? If you spend most of your computer time hunched over your joystick, small speakers near your monitor will do the job. A big, room-filling sound requires a powerful system that's heavy on bass, and that means a separate subwoofer.
- 2 Amplification:** Always choose speakers with built-in amplification.

These are more powerful and sound better than cheap speakers powered by the weak signal from your sound card. Just make sure there's an outlet handy.

- 3 Wattage:** Pay attention to the power numbers. A higher wattage means a cleaner and more powerful sound. Speakers outputting 3-5 watts per channel are adequate for home use, though not spectacular. Top speakers for big sound output 10-25 watts per channel.
- 4 Frequency response:** This is the range of sound frequencies your speaker can generate. The human ear can hear sounds from 20 to 20,000 hertz (cycles) in frequency. Speakers that approach these numbers sound fuller, with better highs and lows.
- 5 Portability:** Going somewhere with your speakers? Look for units that are light and/or collapsible and that are compatible with DC (i.e., car battery) as

well as AC power sources.

- 6 Footprint:** Speakers with a small footprint are a bonus for those lacking desk real estate. Some speakers can be mounted on the side of your monitor or on the wall behind your PC.
- 7 Controls:** Controls should be well-placed and easy to use. The best designs put all the knobs on one speaker: volume, balance, treble, bass, and power on/off. Look for the extra conveniences of separate headphone and RCA (line) jacks.
- 8 Subjective sound quality:** The numbers and design aren't everything: a speaker's worth is really in the ear of the hearer. Don't let brochure hype or a sales pitch sway you; go with your own ears. What sounds good to you is what you should buy — wallet permitting, of course.


Yamaha YST M10/YST MW10

Yamaha dominates the market in pro-level speaker monitors for recording studios. The YST M10/MW10 satellite/subwoofer system features some of the same sonic accuracy. (The Yamaha YST M10

is pictured on page 60.) The sweet, woody sound of this subwoofer/satellite system comes from the spruce wood Yamaha uses in the 10-watt M5 woofer cones, the same wood Yamaha uses in its pianos. The rigid cones prevent energy from escaping the enclosure, adding punch to the bass. If you prefer a warm, natural sound, you'll like this system. The MW10 subwoofer pushes out 25 watts of deep bass power, down to 35 Hz; you can't hear much lower than that. I also like the subwoofer's auto-off feature; cut the music and the subwoofer turns off by itself, saving you a trip under the desk. *List price: YST-M10: \$149/pair; YST-MW10: \$199.95/pair*

Time for a Test Drive

Once you've narrowed down the choices, try out the speakers that interest you at a local dealer. A model

that seems perfect in every other way just may not have the sound you're looking for. Take your favorite CD-ROM along, and remember to pump up the volume — speaker flaws really come out at high sound levels. Just be warned: any of the speakers described above will blow your hat off. And isn't that what you're looking for? 

Contact Info

Advent Schiller Park, IL (800) 323-0707
Altec Lansing Milford, PA (717) 296-4434
Apple Computer Cupertino, CA (408) 974-6144
Bose Framingham, MA (800) 444-2673 or (908) 233-8800
Jazz Hipster City Of Industry, CA (818) 336-2689
Labtec Vancouver, WA (206) 896-2000
Roland Los Angeles, CA (213) 685-5141
Yamaha Buena Park, CA (714) 522-9240



Yamaha YST MW10



Five Power Tools To Clean Your Windows

Need to uninstall? Sure, we all do. These five packages help clean your system and keep it that way.

Windows applications are becoming ever more sophisticated. They increasingly include more goodies, such as sound and music, templates, clip art, "wizards," utilities, and online documentation. Even with CD-ROM software, it's often preferable to copy frequently accessed files onto your hard drive, so the program starts up and runs more quickly.



On the DISC!

Try out any one of ten shareware uninstallers included with this issue.

But in no time, your hard drive is cluttered, and it's not easy to remove – or uninstall – software. You can remove an icon and delete the program directory in File Manager, but too often an installation will spread its tendrils throughout your hard drive, making it difficult to track down all the files you need to delete. Even if you delete the program's

Charles Brannon

directory and its icons, you'll leave all kinds of digital residue behind. It not only wastes disk space and memory, but can lead to confusing errors and loss of performance.

We'll examine five "uninstall" programs: *WinDelete*, *Uninstall-It*, *Uninstaller 2*, *WindoWasher*, and *Remove-It*. While they work as promised, each has unique features.

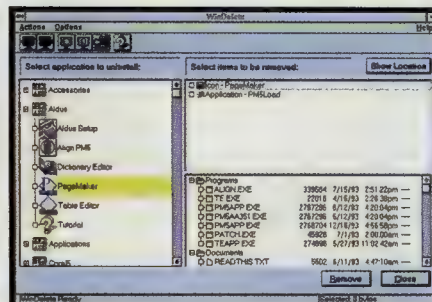
WinDelete

IMSI \$49.95

WinDelete is easy to use, and less intimidating to casual users than some of the other tools covered here. It can uninstall existing software, but it excels when you let it monitor new software installation. That way it can make a record of your system configuration and hard disk files, perform the new installation, and then

note which files and directories have been added, updated, or altered. It's a more reliable method of uninstalling. Other programs have to deduce what files were created or modified by a program, but *WinDelete* has the inside track if you faithfully install all new programs with it.

You can get a snapshot of your hard drive with "Display graph of disk usage." From *WinDelete's* main menu (see below), I've chosen the icon for PageMaker 5.0



You control which files will be deleted.

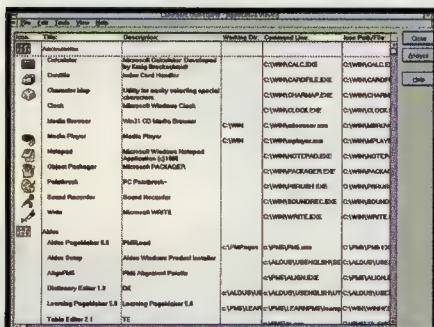
to see what files will be deleted, and I can modify the files that have been marked for removal. For example, I could not only remove the application, but also all the documents that were created with it. The major drawback of *WinDelete* is that it can only remove applications with Program Manager icons, so if you've already tried to manually delete an application, *WinDelete* can't clean up after you as can the other tools.

Uninstall-It!

Landmark \$69

Landmark's program has several good features, some of them quite similar to *Uninstaller 2*. The main menu lets you scan for and delete applications; locate and exterminate "stray" or orphaned files left over from manual attempts at uninstallation; and discover and delete redundant files that waste disk space.

Scan Applications (see below) shows each program group, together with its icons, along with each program's



When you choose Scan Applications, you see each program group, its icons, and other information. Select an application, then begin deleting associated files.

description, location, and command line. Select an application and you get a list of files to be removed. You can also use Prediction Viewer to get a preview of how much disk space you'll free up.

Note the option for Uninstall and Backup. When you remove an application, you can save it in a compressed archive (compatible with PKZIP) on a different drive (including network drives) or in a temporary directory. You can't directly backup to a floppy unless it can fit on a single diskette. However, if you

archive to your hard drive, you can separately back up the archive with your favorite backup utility (or use Microsoft Backup included with DOS 6). This lets you temporarily uninstall a program to free up space, and easily restore it later, with no harm done. If you decide to remove it for good, just delete the backup file.

You can also look for orphaned files. These are entries in your .INI system files which "point to" files that no longer exist on disk.

You can use Find Duplicates to look for redundant files. Many Windows applications copy their own versions of files such as VBRUN300.DLL, BWCC.DLL, etc. to their own directory, even if they are already in the Windows directory.

Uninstaller 2

MicroHelp \$69.95

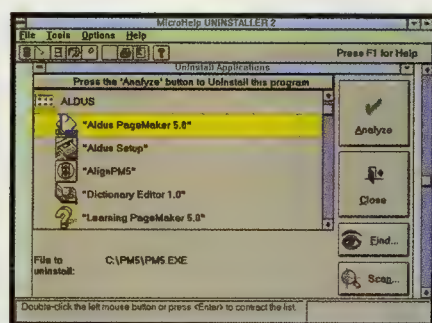
The original Windows uninstall program is now better than ever. In the accompanying graphics, I've clicked on Uninstall Applications, and located PageMaker. I can then see which files will be removed, and as with *Uninstall-It*, mark and unmark these files to customize what will be removed. The safest choices are already marked, but you can save more disk space if you know what you're doing.

System Cleanup will remove files no longer used by Windows, such as old fonts or video drivers. For example, if you change video cards, *Uninstaller 2* will find your old, obsolete drivers, and give you a chance to chuck them out.

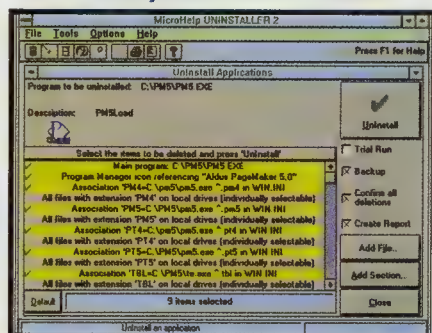
The INIClean utility guides you through your system .INI files, line by line. It's a little safer than editing them directly with SYSEDIT or Notepad. If you don't know what a setting does, you can press F1 to read more about it — a great way to learn more about Windows technical details.

The Duplicate File Finder is marvelous. It thoroughly examines your hard drive and finds all files that have identical names. Just because two files have the same name doesn't mean they are redundant, so you can use the View button to take a look at the files. You

can use the date, time, and size entries to decide which version of a duplicated file is more recent.



Choose Uninstall Applications (above), select an application (below), then mark or unmark any files slated for removal.



A nifty bonus: if you remove an application from a network drive, *Uninstaller 2* can leave behind a "decoy" program. When another user tries to run the deleted application, *Uninstaller* takes over and can complete the uninstallation on that computer, too.

WindoWasher

Micah Development \$49.95

Although not a true uninstaller, *WindoWasher* has some unique abilities. It can't automatically identify all the files that were installed by an application. It takes a different tack: by installing a special driver in CONFIG.SYS, it's capable of monitoring all file access on your computer. Over time, it "learns" which files you use the most, and which files you hardly ever touch. Filenames are displayed in red, green, or purple. The red files have never been accessed, the green files have been accessed twice, and the purple ones three or more times. (This can be reconfigured if you like, such as red=5 times, green=10 times,

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Interplay
Entertainment

Product Information Number 102

GYRCL

Feature Comparison

	WinDelete	Uninstall-It!	Uninstaller 2	WindoWasher	Remove-It
Uninstall existing programs	3	3	4	2	5
Monitor installation for later uninstall	4	0	0	2	4
Backup and restore uninstalled applications	0	4	0	3	4
Clean .INI files	0	3	4	0	2
Identify Deletable files	3	2	3	4	4
Remove unused drivers/fonts, etc.	0	1	3	3	4
Find duplicated files	0	4	5	0	4
Range of Features	3	4	4	2	5
Ease of Use	5	3	3	2	4
Overall (not weighted)	🔵🔵🔵	🔵🔵🔵	🔵🔵🔵	🔵🔵🔵	🔵🔵🔵

(Higher scores are better. 0=not included, 1=minimal, 2=some utility, 3=functional, 4=well implemented, 5=superb)

purple=20 times or more). A pie chart shows what percentage of the current directory is used by the various access categories, and you also get a count of each file access category. You can also scan the entire disk. For the most control, you can leave the FileSpy utility running all the time as an icon, and watch as it "sees" every file that's been accessed. It's like an audit trail for your hard drive. *WindoWasher* speeds up your frequently used files by actually relocating them so they're found first in their directory.

Once you know which files you hardly ever use, you can "Exile" these files to a compressed archive. If you change your mind, you can restore these files from Exile. After a file (or group of files) has been Exiled for a while, and you don't miss them, you can just delete them from the archive to permanently free up the disk space, or use your backup utility to keep them on tape or disk.

This Exile process is not automatic — you have to decide to Exile files routinely. It also won't automatically restore Exiled files when they're needed. Another limitation of *WindoWasher* is that it doesn't work with 32-Bit File Access in Windows for Workgroups 3.11



WindoWasher uses color codes to show frequency of file access.

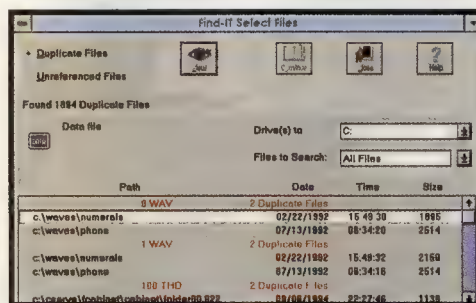
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Remove-It

Vertisoft Systems \$69.95

1-800-466-5875

I saved the best for last. Combining some of the best features of all the other tools, *Remove-It* is an impressive, well-designed package. Like *WinDelete*, it monitors new program installations to



Of all the power tools, Remove-It offers the best, most detailed reports.

provide the safest method for uninstalls. Like *Uninstall-It* and *WindoWasher*, *Remove-It* can backup uninstalls for later restoration (it can actually reverse any of its operations), and you can backup directly to floppy disk. You can also use it to quickly "clone" an installation onto

other computers (assuming you have enough licenses). It can safely remove existing Windows applications that weren't monitored during installation, and can also safely remove most DOS applications. It detects more kinds of unused drivers than does *Uninstaller 2*, and can also locate duplicate and unreferenced files, although its file viewer is kind of limited (but it's the only one that can preview fonts). And it includes the file-monitoring capabilities of *WindoWasher*, to help you delete

the files you use the least (like *WindoWasher*, this feature is not compatible with WFWG 3.11's 32-bit File Access).

Remove-It has some other great stand-out features. It produces the most useful and detailed reports. It creates an "Emergency Boot Disk" that lets you boot your computer even if the system files get corrupted. The graphic appeal of the user interface helps make *Remove-It* accessible to new users, even if it's not as simple to use as *WinDelete*.

Must-Have Tools

Ironically, only *WindoWasher* and *Remove-It* include a way to uninstall themselves, a revealing omission, and emphasizes why you need these tools. After all, if you uninstall software, you won't be a customer for future upgrades and add-ons, so publishers are reluctant to make it too easy! You should insist on uninstall features in all your software. Windows 95 is expected to include some uninstall features, but why wait? Get an uninstall program, and maybe you won't have to buy a new hard drive after all. ☺

Contact Info

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Micha Development Cambridge, MA (617) 641-1500
MicroHelp Marietta, GA (404) 516-0899
Vertisoft Systems Easley, SC (908) 303-8627



Moguls

Anne L. Tucker



On the DISC!

Rate these titles for yourself. We've included an interactive demo of each.

It's time to break out your mittens and throw a few more logs on the fire. Ski season is here, and if you're planning a winter getaway, you can check out almost any resort in the U.S. and Canada from one of three new CD-ROMs. With *Skier's Encyclopedia* from RomBoy, *Ski Odyssey* from Media Odyssey, or *Discovering Utah* from Mountain View Media, you can find a variety of quick and helpful tips on everything from the number of restaurants in Park City, Utah, to the proper techniques when skiing on ice.

Skier's Encyclopedia

Skier's Encyclopedia, for Windows, covers the most territory, geographically — there's access to both American and Canadian resort information. And the disc is literally full of material, topping out the bunch with 550MB of information. Bear in mind, though, that video, sound, and animation take up the bulk of that space.

From the main interface you can go to one of three sections: Lessons, Equipment, or the Almanac. Choose a lesson from the menu, then watch a video clip of a ski pro giving tips about a particular element of the sport. Tutorials cover stance, pole use, weighting, steering, steeps, moguls, powder, and ice. Additional text is provided with each lesson — these "extra" hints can be scrolled through or printed. The Lessons section is the highlight of *Skier's Encyclopedia*.

Select Equipment to learn more about the production and use of skis, bindings, boots, poles, gloves, eyewear,

If it's winter, it must be ski season. Three new CD-ROMs offer skiers of every level a multimedia tour of the sport and hundreds of resorts. Here's how they match up.



clothing, and other gadgets. The video in this section is provided by ski equipment manufacturers, such as Gargoyles Eyewear, who describe how a piece of equipment is made, while showcasing their particular line of gear. Most of this information is directed at the seasoned skier, who purchases rather than rents equipment, and likes to keep up with the latest fashions on the slopes.

You can use the Almanac to search for a specific resort, search by state, or choose from several "best of" categories. Start by pressing the "Find Resort" button or by clicking anywhere on the map. If you're looking for a specific name, you can scroll through an alphabetical list of every ski destination on the disc. An outline of all resorts found in each state highlights a few that are the best; these favorites are marked with a corresponding colored dot on the map. If a state or region has fewer than 12 resorts, though, all of them are highlighted (hence, not necessarily all "best" resorts).

Once you make a selection — let's say Park City, Utah — a screen appears with a trail map, information box, and zoom buttons for text and maps. Occasionally, one of the larger ski area maps will be enhanced with an animated, aerial view. You can access ticket prices, phone numbers, airline travel info, slope difficulty, etc., from the

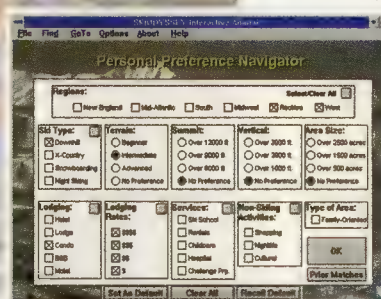
menu. This information appears in small secondary windows, but isn't quite specific enough to use in planning a detailed vacation. For example, under Adjacent Facilities you discover that there are ten restaurants in Park City, but that's all — no further details.

Ski Odyssey

Media Odyssey's *Ski Odyssey*, for Windows, is impressive with a depth of



Use the Personal Preference Navigator to do a custom search for the "ideal" ski resort.



information rivaled by few other CD-ROMs. It's hard to imagine that even a travel agent could provide as much detail and in such an organized fashion. The search capabilities for *Ski Odyssey* are equally tremendous; look for anything from a Colorado Bed and Breakfast you heard about, to all of the "bowls" in the Rockies. You can also sort most of the information alphabetically by price, category, capacity, height, length, etc. This is one versatile disc.

For purposes of comparison, we looked at *Ski Odyssey's* coverage of Park City, Utah. The screen for this resort, as well as for all other ski locations on the disc, displays a variety of options to explore. The General Overview, Trail Info, and History sections offer a nice introduction to the area — with photography and video clips. Choose Lift Summary to see a list of all lifts, their type, ride time, and vertical; or Trail Summary for similar stats and ratings.

The Food and Lodging guides are surprisingly thorough, with price ranges, types, and phone numbers. Any listing marked with a black diamond can be accessed for a further details and photos. (The black diamond indicator is used throughout the program to indicate additional available information.) There were 39 hotels listed compared to only 5 in *Skier's Encyclopedia* (and a comparable 35 in *Discovering Utah*).

The Shopping, Skier Services, and Other Services buttons lead you to local ski schools, rental shops, and retail stores. Additional facts about Park City can be obtained under Non-skiing Activities, Special Events, How to Get There, Special Values, Summer/Fall Activities, and Ski Packagers. For instance, you can find who to call for

dog sled tours, horse stables, or winter ski festivals.

Other friendly features of *Ski Odyssey* include a Personal Preference Navigator, download capacity, and vacation worksheets. The Navigator allows you to search for the perfect resort by selecting specific



criteria, such as a location for intermediate skiers with snowboarding and a family orientation. The download function lets you choose sections of the CD-ROM to save to your hard drive — a clever option for on-the-go laptops (kind of like carrying your own giant electronic brochure.) In case you still want someone to plan the trip for you, simply print out the *Ski Odyssey* worksheet, fill in the blanks, and mail it in to one of the packagers listed on the disc. They'll help with making arrangements for your trip.

Discovering Utah

For a closer look at a concentrated ski area, Mountain View Media offers *Discovering Utah* for Macintosh and Windows. This CD-ROM's strength lies in its video footage of several popular Utah slopes. The visual layout has a bright, aesthetically pleasing appeal. And the screens feature clear, well-designed graphics. The maps, though obviously fewer in number than the other two discs, are tops in quality.

Fourteen resorts are profiled in *Discovering Utah*, each with its own trail maps, video, and slope facts. Once again, we looked closely at Park City, Utah. The initial screen is a map of the area, with four regions highlighted, each

within a yellow box. Click on any one of these boxes to view a video sequence showing people skiing on a trail (labels for the trail shown pop up on the viewing screen).





























































A particularly nice touch is watching a clip and seeing the exact location of that trail on the map. These videos also offer plenty of inspiration to try one of the more challenging runs on your next trip.

The rest of *Discovering Utah* is marginally valuable. The facts and figures are adequate, but finding exactly what you want is frustrating. For instance, you can't just click on a button to find directions, snowmaking capacity, or mountain height — you'll have to pick it out from the Resort Overview. And compared to *Ski Odyssey*, the Restaurants, Accommodations, Lift Information, and Ski School entries are skimpy.

Discovering Utah does offer some additional helpful material under its Mountain Facts and Plan Your Trip categories. Mountain Facts is a general, comparative look at ski resorts across the state, referencing highest peaks, snowfall, and so on. Similarly, Plan Your Trip groups vacation details for the entire state. All hotels, ski-rental shops, and shopping areas in Utah are in long, scrollable lists which can't be sorted.

The good news is that all of these ski CD-ROMs come with coupons and special offers for various products and services. The bad news is they run slower than molasses.

For planning a winter ski trip, get *Ski Odyssey*, the best all-around resort guide. It's simply packed with every detail, and at \$39.95, it's a bargain. If you're an intermediate skier just looking for the basic facts on a variety of resorts, or you'd like to brush up on your "look" and technique, get *Skier's Encyclopedia* for \$49.95. For the same price, you can purchase *Discovering Utah* from Mountain View Media, a beautifully filmed and photographed CD-ROM for those planning a ski vacation in that state.

Skier's Encyclopedia	
Depth of Information :	Visuals:
  	   
Interface:	Audio:
   	   
Overall:    	
Ski Odyssey	
Depth of Information :	Visuals:
    	  
Interface:	Audio:
    	  
Overall:     	
Discovering Utah	
Depth of Information :	Visuals:
  	    
Interface:	Audio:
   	   
Overall:    	

Contact Info
RomBoy North Hollywood, CA (800) CD-TO-SKI
Media Odyssey Denver, CO (800) 99-SKI-CD
Mountain View Media Mountain View, CA (800) 241-UTAH



INFERNO

THE ODYSSEY CONTINUES™

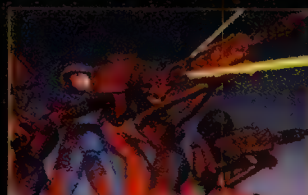
We have seen the future, and it's not very pretty.

No matter what you've done. No matter where you've been.
No matter who you've crushed to get there. Nothing...can prepare you for this.

No, not Iraqis. Rextons. Relentless, AI-controlled alien mercenaries with military capabilities far greater than that of ten thousand Third World nations. And all of it—every bit of this deep space hell—takes place in a brilliant, hyper-realistic 3D universe 500 million miles into the future.

Inferno is here. Heed the warning.

Superfast 3D graphics. Ultra-sophisticated virtual worlds...
Gameplay so advanced, we're no longer sure our programmers are from this earth!



Oh, yes, this incredible space simulation is brought to you by the same people who dropped you over the Persian Gulf in *TFX*.

Bio-intelligence is built right into the amorphous fabric of your ship—from the plasma computer to the complex propulsion and weapons systems!

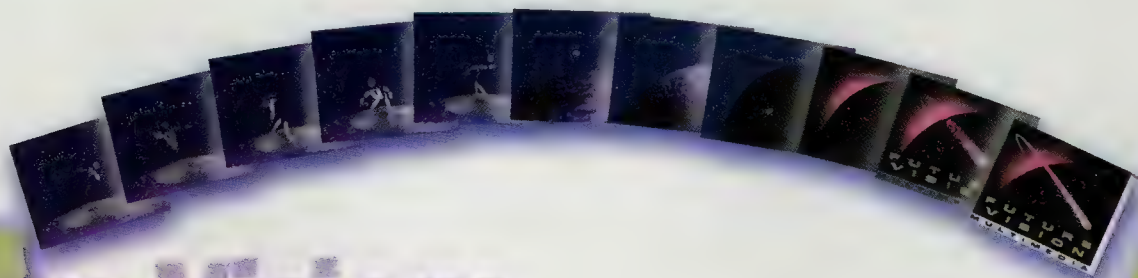


Over 700 scenarios take you through four moons and seven planets, each with its own climate, atmosphere, habitat, geology and defense systems.



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Future Vision:

Jerusalem

Exploring Yesterday and Tomorrow

New York

Ambitious, innovative, and unique — Future Vision is something of a maverick in the multimedia CD-ROM industry.

With an eye to the future, Future Vision Multimedia is mining gold in the past. The Long-Island-based edutainment publisher, formerly known as Interactive Electronic Publishing, has one of the hottest multimedia historical discs out,



Leonardo the Inventor [reviewed in the November issue], and was slated to release several more historical titles by the end of

1994, including a virtual tour of Jerusalem to coincide with the city's fourth-millennium festival.

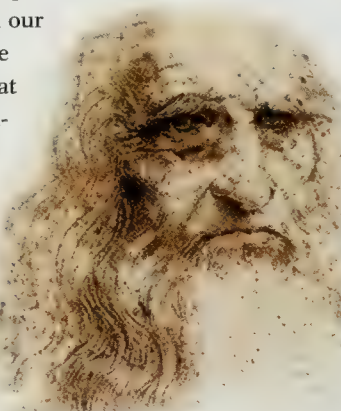
Less than two years old, and lacking the major resources of a publisher like Microsoft or Time Warner Interactive, Future Vision nonetheless has some unusual development strengths to draw upon. The company's creative team, SuperStudio, is located in a city rarely thought of as a center for software development: Jerusalem. "SuperStudio works for us in an exclusive relationship," says Scott Tobin, director of corporate development. "There are about 40 program-

Steven Anzovin

mers, most of them Americans, who have moved to Israel." Why create English-language CD-ROMs in Israel? "We've found that there are certain advantages to developing multimedia in Israel; you can find extremely high technical and animation expertise at a much lower cost than in the States. They practically teach Director [the multimedia authoring software] in high school! Plus, most Israelis speak several languages; we can develop products in multilingual versions quicker there than in any other place," says Tobin.

"We brainstorm the products here, then we fly over and sit down with the development group in Israel and match our conception of the product with what is technically fea-

Leonardo the Inventor, an outstanding CD-ROM title, was the first title to herald Future Vision as a multimedia innovator.

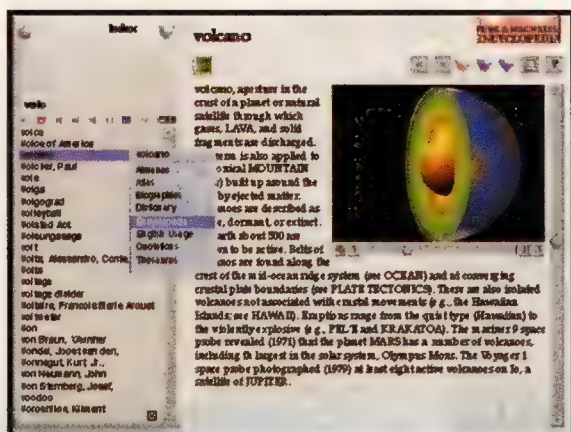


One of the newest titles on Future Vision's horizon: Martial Arts Explorer, with black-belt hosts for each discipline.

sible. It's a real partnership."

SuperStudio developed the graphics and interfaces for Future Vision's IntelliQuest series, which kicked off in 1994 with *Leonardo the Inventor*. New titles in the series include *Martial Arts Explorer*, an overview of all the martial arts, with blow-by-blow video comparisons by black belts in each discipline; and *Pathways Through Jerusalem*.

Another of the Israeli team's efforts is *InfoPedia*, Future Vision's new encyclopedia disc. While it might appear that the CD-ROM encyclopedia market is already



According to Future Vision, InfoPedia offers something not found in any of the established CD-ROM encyclopedias: quick access and a quick exit.

well serviced with products like Compton's, Grolier's, and Encarta, Tobin sees an opportunity that the other encyclopedias are missing. "None of them, in our view, provide what people really look for when using an encyclopedia: quick access to information and a quick exit from it," says Tobin.

"We approached the InfoPedia design from two perspectives. First, we

did our own research to find out exactly how people use an encyclopedia. In other products, we saw lots of distracting elements that prevented them from quickly getting the information they wanted. One problem, especially for new users, was the window-upon-window interface. So we created a split-screen interface, where the main interface access points are always in the same place and in the same size.

"We also looked at what value people place on multimedia. We were surprised to find that people don't always want to see the multimedia elements, either. So we give them the option to get rid of any multimedia element, even the browser, and get text across the entire screen. That's not to say that our multimedia elements aren't top-notch. As you can tell from *Leonardo*, we think animations are more effective than videos for conveying infor-

Is the CD-ROM encyclopedia market already too crowded? Future Vision is betting that it's not. They believe that InfoPedia is a better product than Encarta, Grolier's and Compton's.

A Virtual Tour of Jerusalem Through the Ages

Future Vision's Israeli development group is in the right place at the right time to launch the company's most eagerly awaited project: *Pathways Through Jerusalem*. The Holy City celebrates its 3000th birthday in 1995. History is a living force in Jerusalem, where the remnants of the Great Temple of the Jews can be seen below the mount where Abraham prepared to sacrifice Isaac, and where Muhammad was said to have

ascended to heaven. Scattered throughout the walled city are 2000-year-old Roman ruins, 10th-century crusader fortifications, and postmodern office buildings. To get a clearer picture of Jerusalem's long, complex, and often turbulent history, tourists who plan

to join the celebration might first want to spin this disc, which should be available shortly.

Using 3D rendered animations, *Pathways Through Jerusalem* provides a virtual historical

man emperors; Tamar, a modern Israeli; Abed, a modern Arab; and Jim, an American tourist. Click on King David, and he leads you on a tour of the city as it was during biblical times; click on Tamar, and she shows you modern Jerusalem through the eyes of an Israeli.

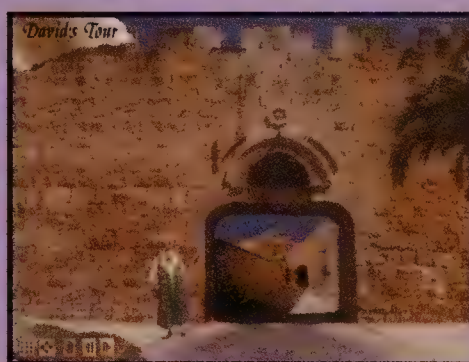
Pathways Through Jerusalem, the first title in Future Vision's Pathways series, will be followed by *Pathways Through Rome*, *Pathways*

Through Greece, and discs on other ancient sites. Then, according to Tobin, the series will tackle more modern cities including London, Paris, New York, Tokyo. "Every major city has a fascinating history that can be dramatized in this way."



Pathways Through Jerusalem offers a virtual historical tour of the city. Guides from various time periods and different cultures each offer unique perspectives on the Holy City.

tour. Actors portray 12 representative figures from Jerusalem's history, including King David; Herod I, builder of the Great Temple; Queen Helena, the 3rd-century Roman Empress who made a pilgrimage to the city; Dirk, a crusader; Suleiman the Magnificent, greatest of the Otto-



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Product Information Number 119

mation. SuperStudio has created some superb animations that set *InfoPedia* apart from any other product. We also have original maps created by Hammond."

Future Vision founder Harry Fox (see below) believes that CD-

ROM will be the great democratizer of multimedia computing. "Our goal is to set up a global CD-ROM publishing network," Fox says, "to create multilingual, multiplatform products

for everyone." Tobin is convinced that multilingual, cross-platform discs are the wave of the future. "Someday, you'll be able to play our discs in any computer in the world." 

"Our goal is to create multilingual, multiplatform products for everyone."

**— Scott Tobin
director of corporate development**

Contact Info

Future Vision Spring Valley, NY (914) 426-0400

Future Vision's Harry Fox: Father of the Multimedia PC?

Multimedia has had many parents, but the one most responsible for bringing CD-ROM-based multimedia to the desktop is Harry Fox, chairman of Future Vision.

Fox got his start in consumer electronics back in the mid-1970s, working for a company that developed the first talking watch. "In 1987," Fox said from his Jerusalem office, "I went to the Dutch company, Vindex [later bought by Philips], where I saw an opportunity to bring the home computer back into the marketplace. People needed a turnkey approach to being productive, a user-friendly environment, so people could understand what the computer could do for them. We made an idiot-proof computer, the Vindex HeadStart, and Software Toolworks developed a suite of applications for us.

"The home computer hit a real bottleneck in the late 1980s," Fox continues. "People were spending their money on VCRs, camcorders, home sprinkler systems, not on PCs. I decided that CD-ROM — a Philips invention — was the key to making home computers appealing and useful.

"The entire industry had written off CD-ROM as a nonfunctional replacement for a hard drive. I saw the storage capacity as a selling point. In 1989, I went to Phillips and said: 'I have your magic potion. I can get a slew of software developers to give away software on disc. We'll make a computer with a free encyclopedia. All consumers have to know is where the slot is. All I need is a

\$100 CD-ROM drive.'

"The drive manufacturers thought I was nuts, that there was no market. So I went to Sony and got Sony to play ball. We got it to the point where HeadStart could deliver a CD-ROM drive in a PC at the same price other computers were selling for. I then lined up software from Software Toolworks and other developers.

"We showed the Vindex HeadStart with CD-ROM drive at COMDEX in November of 1989. People had never seen an integrated PC with a CD-ROM built in. There was a tremendous reaction. It was also the beginning of bundling of low-cost CD-ROM titles — an encyclopedia came with the machine. We even put in a Sound Blaster board. It was the first multimedia PC.

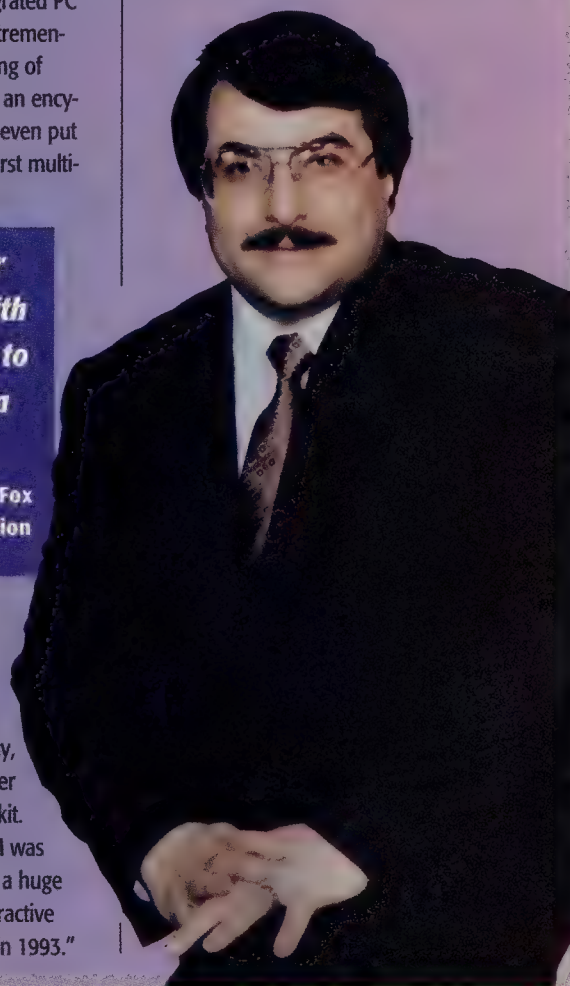
"I went to Philips and said 'I have your magic potion. We'll make a computer with a free encyclopedia. All consumers have to know is where the slot is. All I need is a \$100 CD-ROM drive.'"

**— Harry Fox
founder and chairman of Future Vision**

"Four weeks later, Philips decided to kill the project in favor of CD-I. I resigned in February, 1990, and started my own consulting business. One of my early clients was Sony, for whom I put together the Sony Laser Library, the first multimedia upgrade kit. At that point it was clear that CD-ROM was going to take off, that there would be a huge demand for software. That led to Interactive Electronic Publishing, which I started in 1993."

[The company name was changed to Future Vision in fall 1994.]

Where is Fox's silvery brainchild going from here? "Books on CD-ROM aren't the future," he claims, "and games aren't the future either. The future is to intelligently bring educational topics alive. That's what CD-ROM can do that no other medium can do: offer unlimited access to important information in an entertaining way."



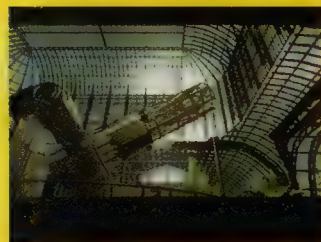
A locomotive speeds through a retro-future world

GADGET

Directed by
Haruhiko SHONO



**Winner of the 1993
Multimedia Grand Prix
MITI Minister's Prize (Japan)**



West End Hotel room 306. A boy you meet in the elevator. A duralumin suitcase exchanged for your own.... This is where **GADGET** begins.

"I want you to get in contact with a scientist named Horselover." At the direction of the mystery man Slowslop you go to West End Station and board a train pulled by a steam locomotive. You gather information and gadgets from people you meet aboard the train, at stations along the way or at the National Observatory. As you follow in Horselover's footsteps you uncover a series of startling revelations: a comet is fast approaching earth, there are plans to construct a small spaceship called the *Ark*.... **GADGET** races on to its terminus, and there a surprising conclusion awaits you.

Directed by Haruhiko SHONO, creator of *Alice* and *L-ZONE*. Beneath the banners of **INVENTION, TRAVEL & ADVENTURE** there spreads before your eyes a realm you see for the first time, yet which is warm with nostalgia. A major interactive film experience, **GADGET** deftly balances the interactivity of a mouse-operated moonwalk in 3-D space with the dynamic power generated by QuickTime movies. At the 1993 Multimedia Grand Prix, the most prestigious of multimedia contests in Japan, **GADGET** won the Ministry of International Trade and Industry, Minister's Award, the digital equivalent of an Oscar for best movie.

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CD-ROM for Windows 3.1 & Macintosh

For more information on **GADGET** please contact:
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CD-ROM Titles Support Desk
333 South Hope Street, Los Angeles, CA 90071
Tel: (213) 687-2906
Fax: (213) 687-2946 (24 hours a day)

CD-ROM Today Reviews

ABOUT OUR REVIEWS

All reviews in **CD-ROM Today** are rated with an easy-to-understand five-point system:

●●●●● = outstanding

●●●● = a cut above

●●● = adequate

●● = deficient

● = very poor

N/A = not applicable

Many of the titles covered in our Reviews section include an appearance on *the Disc!* Look for this graphic at the top of the review to see what's on the disc bundled with this issue.



PICKS OF THE MONTH

Reference

80 Star Trek Interactive Technical Manual



A fascinating tour of The Enterprise - presented with the remarkable QuickTime VR

Entertainment

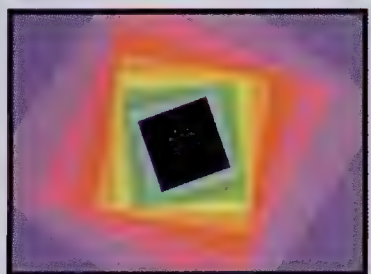
96 Monty Python's Complete Waste of Time



It's the 25th anniversary of Monty Python. And yes, the true lunacy is here. Nudge, nudge.

Resources

120 The Complete After Dark Screen Saver



More than 80 screen savers, looking better than ever, plus lots of bonus features

CD-ROM TODAY REVIEWERS

Stephen Anzovin, a contributing editor based in Amherst, Massachusetts, is the author of three books on Macintosh multimedia (Compute Books). His most recent work is *The Green PC* (McGraw-Hill).

Charles Brannon, a contributing editor based in Greensboro, North Carolina, is a programmer, network supervisor, writer, and technology guru. He is co-authoring an upcoming book on Windows95.

Doug Brumley is assistant editor for *Game Players*, a *CDRT* sister publication. Doug is a former sports reporter.

Matthew Firme is editor of *PC Gamer*, a *CDRT* sister publication. Matt has been writing about computer entertainment for six years.

Anne Gregor, West Coast Editor for *CDRT*, is based in Los Angeles. She is an active observer and critic of the multimedia industry, and has written for a wide variety of publications.

Lisa M. Howie is assistant editor for *CDRT*. She joined the staff earlier this year after graduating from University of Missouri Journalism School. Lisa is a Mac aficionado.

Stephen Kent is a computer entertainment writer whose column *CyberPlay* is syndicated by the *Los Angeles Times*.

Blake Lambert has been writing about hardware and software for a variety of computer publications over the past ten years. He is a freelance writer and professional musician based in Greensboro, North Carolina.

Gary Meredith, our newest *CDRT* staff member, is disc editor. Gary has been writing about computer-based games for five years.

T. Liam McDonald, a contributing editor based in Somerset, New Jersey, is the author of two books, *The 7th Guest/11th Hour* and *Tom McDonald's Games Extravaganza* (Sybex Books).

Leslie Mizell is senior writer for GP Publications. She has served as editor of several GP magazines, including *Game Players* and *PC Entertainment*.

Stephen Poole is manager of On-Line Services for GP Publications. Steve has served as editor of *PC Entertainment* and *PC Gamer*.

Phill Powell is associate editor for *CDRT*, and writes, edits, and compiles the NewsLine section of each issue. He has worked editorially on the magazine since its debut issue (Spring, 1993).

Dean Renninger free-lances for *CDRT*. He is a full-time designer and copy editor for the *Greensboro News & Record*.

Jeffrey Robinson is a free-lance writer based in Syracuse, New York. He has a PhD in chemistry and runs an environmental consulting business. Jeffrey writes about software covering science and science education.

Peter Scisco is a contributing editor for *CDRT* based in Winston-Salem, North Carolina. Pete is a former editor of *Kids & Computers* and *Compute Magazine*.

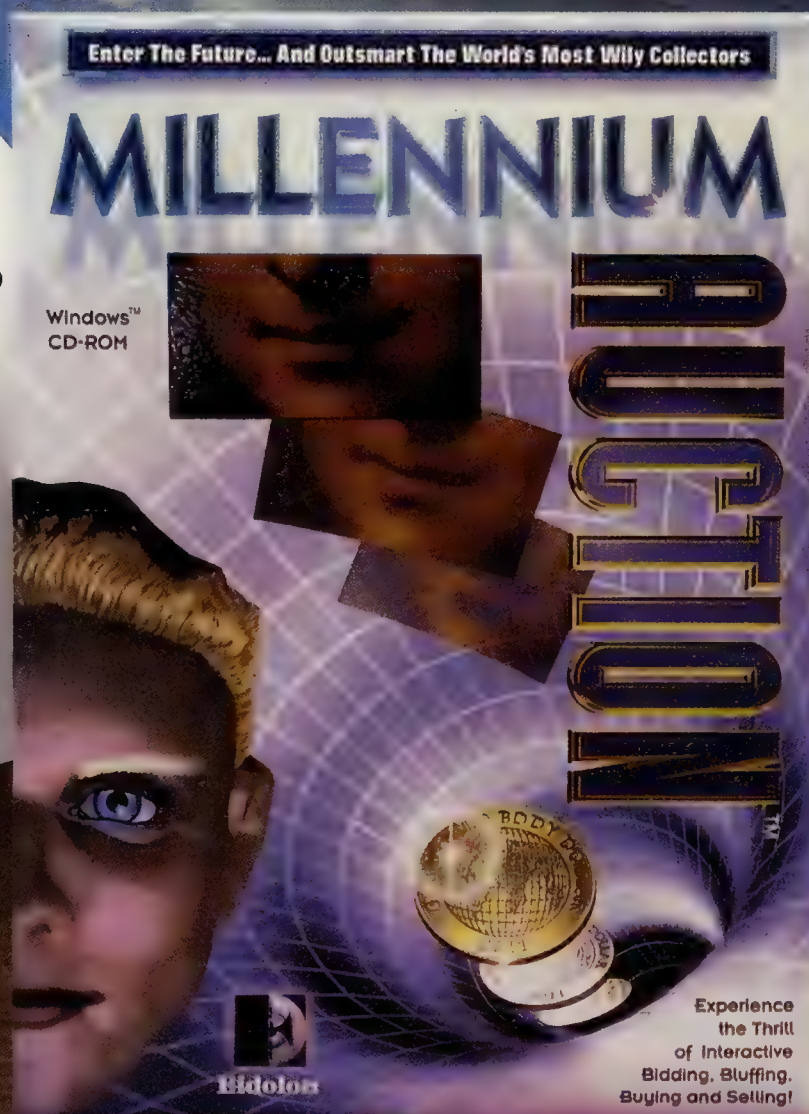
Anne L. Tucker is assistant editor for *CDRT*. She joined the staff earlier this year after working with EPIC, a CD-ROM publishing company.

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This is a mammoth disc in more ways than one. First of all, you've got a ton of information. Second, you've got a huge amount of entertainment. And third, you've got screens and screens of prehistoric elephants!

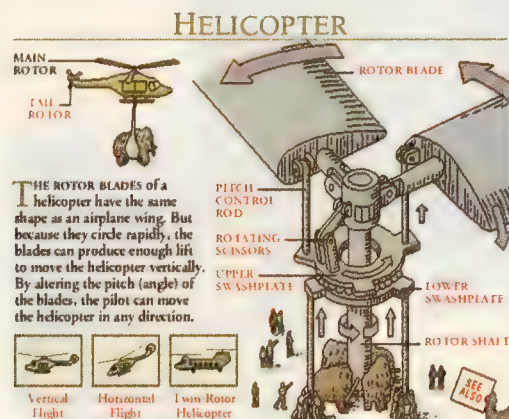
The Way Things Work is both a faithful adaptation of David Macaulay's popular children's reference book and a much better resource. The principles of science are difficult enough to comprehend, even with clearly labeled drawings



The workshop room has standard point-and-click animation. It's fun for tots, but you should quickly move to one of the topics on the left.

and a hint of the absurd. But the CD version of *The Way Things Work* takes everything a step further, offering loads of cross references and mini-cartoons that really help children (and adults, for that matter) conceptualize what's going on in the wondrous world of science and technology.

The Way Things Work is also a rarity because it's well-suited for kids of



Intricate machinery, such as this helicopter, is broken down into the basics and explained as easily as possible. You can get more info on any word highlighted in red.

The Way Things Work

Windows \$99.95

Dorling Kindersley Multimedia New York, NY Phone: (800) DKMM-575

all ages. Younger kids will enjoy looking at the pictures, playing with the point-and-click animated workshop, and watching brief cartoons of the mam-

moths. Older kids can use it to get ideas for science experiments. You couldn't find an easier-to-understand (but nonetheless sometimes complicated) explanation of everything from air conditioning to the contributions of Vladimir Zworykin. Adults can even use it to bone up for "Jeopardy!" competitions — no kidding! Did you know that Prince Henry of Prussia invented windshield wipers?

The program is divided into sections — machines, principles of science, history, and inventors. You can access any of the areas

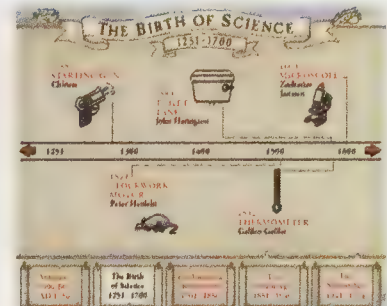
easily, and practically every screen points you to a related topic. There are more than 150 machines explained, 22 principles, and more than 75 inventors. The timeline history runs from Antiquity (7000 BC-AD 1250) and the Birth of Science (1251-1700) through the Industrial Revolution (1701-1850), and Steam Age (1851-1940) to the Silicon Age (1941-1984), and highlights both major and minor contributions in each era.

This is all great stuff, but unfortunately, there's one more mammoth thing about *The Way Things Work* — its price tag. I'm crazy about the program, but I still don't know whether or not I'd shell out a hundred bucks for it. It's terrific, fun, and entertaining. Your kids will love it, your neighbors will love it, your in-laws will love it. And you'll love it even more if you wait and find *The Way Things Work* at a discount.

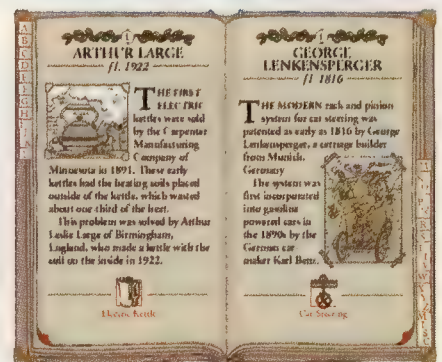
— Leslie Mizell



The mammoth is used to explain the principles of science. You can click on the movie projector to get a short cartoon that puts a different perspective on the topic at hand.

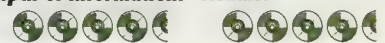


Stroll down the timeline of science to learn some interesting facts. For example, the toilet tank was invented before the thermometer or the microscope.



The *Way Things Work* also points out some lesser known inventors, such as the men behind the electric kettle and car steering.

Depth of Information: Visuals:



Interface:



Audio:



Overall: 10 out of 10 stars

Star Trek Interactive Technical Manual

Mac/Windows \$70

Simon & Schuster Interactive New York, NY Phone: (212) 698-7671

Welcome aboard the U.S.S. Starship Enterprise NCC-1701-D, Starfleet's flagship vessel. As an approved Federation visitor, you have permission to explore the ship's facilities,

including restricted areas such as the Bridge, the Captain's Quarters, the Observation Lounge, and Main Engineering. You may accompany Commander William T. Riker on a guided

tour through the Galaxy-class starship, or explore on your own initiative.

This virtual tour of The Enterprise is sure to be hit with both Trekkers and with anyone interested in seeing a truly

A Day in the Life of The Enterprise



Welcome to the Starship Enterprise NCC-1701-D, home to Captain Jean-Luc Picard and his crew for seven years.



Zoom to the exterior view of the Bridge, where senior officers spend most of their working hours.



On the Bridge, photon torpedo simulations are being run in preparation for possible Romulan attacks.



Senior officers gather in the Observation Lounge for important staff meetings.



The captain's quarters are full of mementos from Enterprise missions...



...including the Mintaka tapestry given to Picard as gift from the Mintaka people.

impressive CD-ROM. Video for the program was shot on the set of "The Next Generation" TV series. Quicktime VR, a new virtual-reality technology in development at Apple (see "New Frontiers" on page 128), used more than 10,000 photographs and video to create rendered representations of rooms for 360-degree viewing. Consequently, the experience here is one of actually being on the Enterprise. You can "walk" around the rooms and even move to other rooms by using Transit Mode – this shows you where you are on the ship, where you want to go, and then takes you there. You walk through long corridors, use turbolifts, open locked doors. You can also Jump to

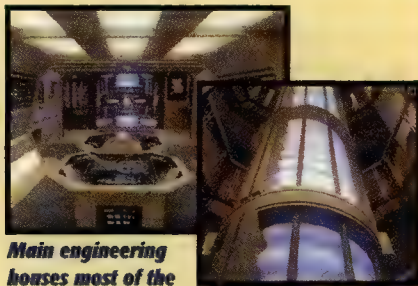
any of the rooms, bypassing the Transit Mode altogether.

As you explore the ship, you can click on numerous hot spots to get more information about particular objects, duties, and ship operations. These hot spots are the best part of the program. On the Bridge, hot spots put you in control of simulations that launch photon torpedoes and probes. In the Ready Room (Captain Picard's office), hot spots reveal many details about Picard's life. You'll find a Shakespeare volume, his lionfish named Livingston, and a model of the U.S.S. StarGazer (the Constellation-class starship Picard commanded before it was lost in the battle of Maxia). In Ten Forward (the ship's saloon), hot spots teach you about replicators, 3-D Chess, and synthehol, a liquid developed by the Ferengis that serves as a substitute for alcohol on Federation ships. Synthehol conveys the intoxicating effects of alcohol without the adverse side effects. (It's good to know that the art of drinking has evolved to such an enlightened level in the 24th century.)

The index is another source of fascinating facts. Clicking on "Enterprise – Past and Future" brings up a brief history on all five Enterprise ships and the evolution of the Starfleet emblem. You also get an outline of design plans for Enterprise ships to come.

The future of The Enterprise – and this product – looks bright. Star Trek's popularity continues to grow, and this program comes along just at the right time; demand is high for Star Trek products since the retirement of "TNG" and the recent release of the first movie, "Generations," featuring the cast from the TV series. *The Star Trek Interactive Technical Manual* is a must for past, present, and future fans of what is now a cultural icon.

– Lisa M. Howie



Main engineering houses most of the Enterprise's operational systems...

...including the warp core, which serves as the ship's power source.



The Ready Room, located off the Bridge, serves as Picard's office.



Ten Forward serves as the ship's saloon, complete with 3D Chess and synthehol drinks.

Depth of Information: Visuals:



Interface:



Audio:

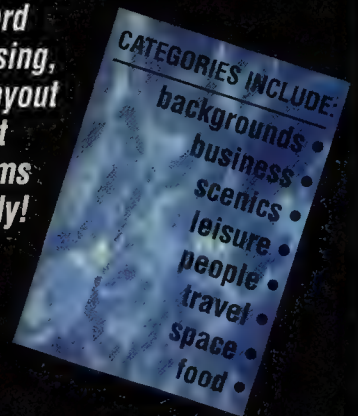


Overall: 4.5 out of 5 stars

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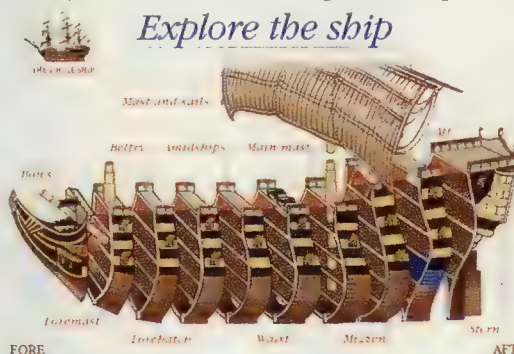
The biography accompanying the popular book, *Stephen Biesty's Incredible Cross-Sections* casually mentions that Biesty likes to take things apart. That's not hard to believe after a few minutes with his new multimedia presentation, *Stephen Biesty's Incredible Cross-Sections Stowaway!*. In this case he has set his sights on an 18th-century warship, and the result is pure Biesty. We've seen these prototype battle-ships in historical films, but usually all the action is above deck. These sailing fortresses, like today's warships, spent long periods at sea, carrying everything they might conceivably need. They were floating villages, with most of the daily life going on below decks – and that's where Mr. Biesty takes us with his magnificent drawings and a bit of multimedia magic.

You can explore in several ways, the quickest being to select the "Explore the Ship" option. This presents a side view of the vessel sliced vertically into ten sections. Click on a section and it appears in full cross-section view from the front. From this screen you can click on whatever section might pique your interest and go to a close-up of that section with text describing the scene, labels for the important items, and often an audio narrative enhancing a certain point. Most sections contain animation that humorously illustrates a particular aspect of shipboard life.

It's fascinating to discover just how segregated the ship was. The gist of the old saying "Rank hath its privileges" was not lost among the officers, crew, and trade people, and Biesty does an

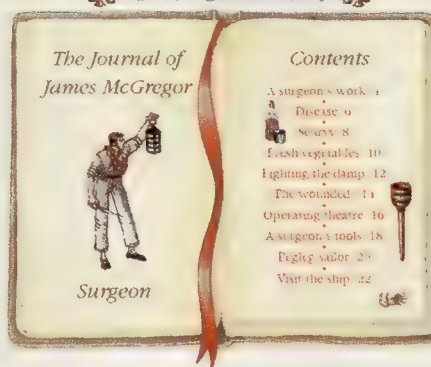
admirable and often hilarious job of illustrating the shipboard societal strata. Select "Meet the Crew" and an illustrated list appears with the major shipboard positions represented. Selecting the doctor, for example, lays out all facets of his life aboard the warship, down to proce-

Explore the ship



The interface make getting around the ship quick and easy. Just click on a slice of the ship and you're immediately taken to the corresponding cross-section.

The surgeon's story



There's a wealth of detail on the various members of the crew, although with some such as the ship's doctor, you may learn more than you might have wished.

dures for quickie amputations during battle. The wealth of detail could teach naval history buffs a few things.

Lest you think *Stephen Biesty's Incredible Cross-Sections Stowaway!* is simply a guided tour, there's also a bit of a challenge. In keeping with the disc's

title, *Stowaway* is a game something like a micro version of *Where's Waldo?*. Find a stowaway and he's added to your list; find ten and you win. As a bonus, your searching leads you to uncover things you might otherwise have overlooked.

The only caveat is the "graphic" nature of some areas. Nothing grossly objectionable, just a bit more "earthy"

Stern

A man-of-war rarely sailed on its own, usually, it cruised with a group of similar and smaller ships. Together, they sailed as a fleet, with an admiral in command. Admirals were chosen from among the best captains. The post of admiral was the highest in the Navy. When there was a victory, the admiral took much of the credit. In defeat, he took the blame. In return for all this responsibility, the admiral was richly rewarded.



You may uncover a few surprises during your search through the bowels of this great ship – like the real reason for all those projecting structures along the ship's sides.

than you might have expected – mostly dealing with the ship's toilet facilities and the crew's "happy hours." With *Stephen Biesty's Incredible Cross-Sections Stowaway!* you learn almost without realizing it, as you make your way through the maze of compartments that comprise this floating village. This is a must for the CD-ROM collection of anyone at any age.

– Gary Meredith

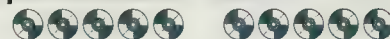
Steward's room

The steward brought supplies of salt beef, dried peas, oatmeal, and fuscians up from the hold, and his mate measured them out from open casks for the waiting sailors.



There's no end to the shipboard trivia you'll uncover. If you've ever wondered what a ship's steward does, here's the place to find out.

Depth of Information: Visuals:



Interface:



Audio:



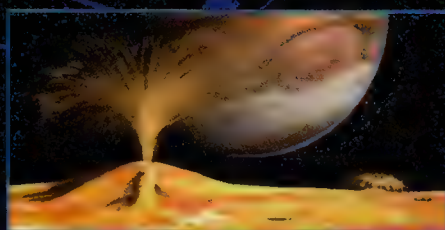
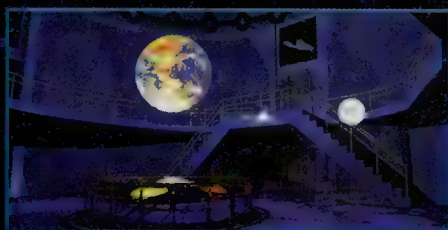
Overall:





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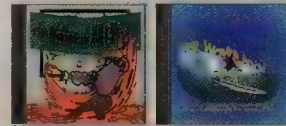
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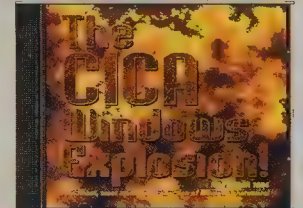
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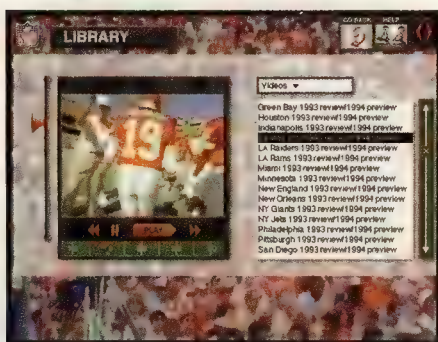
Multimedia NFL

Team NFL 1994 & The Official NFL Yearbook '94-'95

Windows/Mac \$29.95 • Windows/Mac \$49.95

Optimum Resource Hilton Head, SC Phone: (800) 327-1473 • RealTime Sports New York, NY Phone: (800) 728-4000 ext. 3136

During a fall that saw no big league baseball or professional ice hockey, diehard sports fans have been living from Sunday to Sunday, searching for new ways to fill the other six days of the week. Two recently released NFL reference CD-ROMs, *Team NFL 1994* maga-



Each team has at least two videos in *The NFL Yearbook's* library — one that summarizes the club's 1993 performance and previews '94, and one that captures its play of the year.

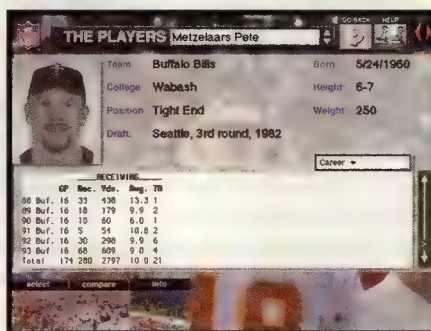
zine and *The Official NFL Yearbook '94-'95*, attempt to fill the bill by bringing stats, schedules, and video clips from around the league to your monitor.

Team NFL includes brief, small-window videos as introductions to each team's scouting report, and pictures are scattered throughout each section — but the program primarily features screens of text. Fortunately, the writing is professional and fairly thorough in both the scouting report and feature sections. But the midseason release of the title undermines much of the information that was obviously written before the opening day kick-off. Articles on Buddy Ryan's "46" defense and the new NFL-Fox deal are two stories that help make the features department the strongest section of the program, while the NFL's best shots over the past 75 years — a section that contains only 9 mediocre pictures — is the

weakest. The remaining statistic and schedule selections are adequate in their detail. Lively music and a visually appealing design enrich the presentation, despite the occasional typo and a few dull narrations of photos.

Hosted by Pat Summerall, the former Giants place kicker and current NFC play-by-play man on Fox, *The Official NFL Yearbook '94-'95* is stuffed with analysis of the 1993 season, and looks ahead to the 1994-95 schedule. *NFL Yearbook* relies more on graphics than *Team NFL*, but the lengthy videos and slideshows still feature a high degree of insight and thoroughness. The interface is organized to give you a handful of options on any given screen and allows you to compare several teams' or players' numbers side by side.

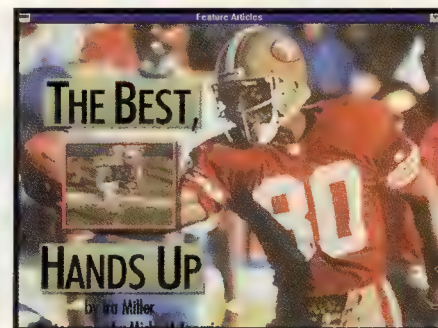
The game's biggest selling point is the ability to update the 1994 season stats, game summaries, weekly previews, and team notes each week with an on-



The players menu in *The NFL Yearbook* gives you access to career stats, personal info, and pictures for every athlete in the league.

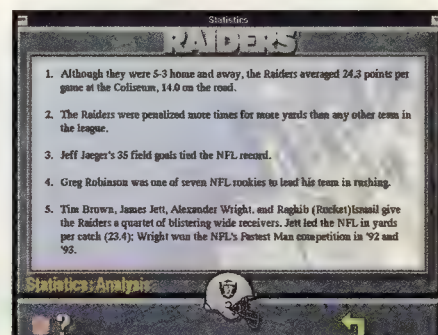
line service that charges only the price of a long-distance call. The week-by-week summaries of the 1993 season feature comprehensive coverage, and the update service allows you to follow the 1994 season in the same manner.

While each title is a solid source for



Team NFL's strength lies in its 12 feature articles, which offer in-depth and insightful writing on a variety of hot NFL topics.

information surrounding the 1993 and 1994 seasons, picking up the *Team NFL 1994* magazine at this late date does little to contribute to your enjoyment of the current season. Be on the lookout



The statistics section in *Team NFL* contains '93 league leaders, team-by-team listings, and a quick analysis of key numbers for each club.

for the 1995 issue of the magazine to get a jump on next season. But if you want to stay informed week to week while also referencing information on the 1993 season and the NFL's 75-year history, *The Official NFL Yearbook '94-'95* is the one that will take you to the Super Bowl.

— Doug Brumley

Team NFL 1994			
Depth of Information :	Visuals:		
Interface:	Audio:		
Overall:			
The Official NFL Yearbook '94-'95			
Depth of Information :	Visuals:		
Interface:	Audio:		
Overall:			

First Person: Donald A. Norman Defending Human Attributes in the Age of the Machine

Mac \$49.95

Voyager New York, NY Phone: (800) 446-2001

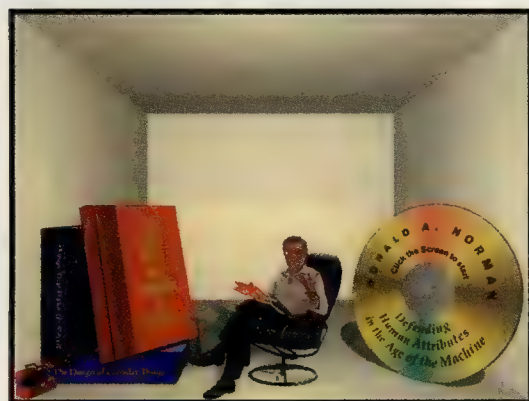
Why does getting a larger screen for your computer tend to slow you down? Why do you walk away from a copy machine with your copies, but leave your original behind? Why can't

stripped our understanding of them." This disc is filled with horror stories of badly designed machines that bedevil us day after day. In his books, Norman develops some simple principles that will help designers and engineers make machines to fit people, rather than force people to adapt to machines. He also challenges the rest of us not to passively accept what is made for us, but to demand technology that works easily and well.

Computers, with their complex, arbitrary representations of invisible inner processes, pose thornier problems of human-interface design than any other machines.

Norman is fascinated and troubled by them, or at least the use we are making of them. "All the ailments of the past, it is claimed, will disappear once these new approaches are in place," he writes of the kind of multimedia regularly discussed in this magazine. But that's not likely, he concludes, if we focus on developing flashy interfaces and neglect to present information in a way that people find meaningful.

This new title in Voyager's First Person CD-ROM series collects Norman's three best-known books along with several essays and lectures. There are more than 1,300 pages of words and illustrations, making this disc a good value just for the text alone. As in the other First

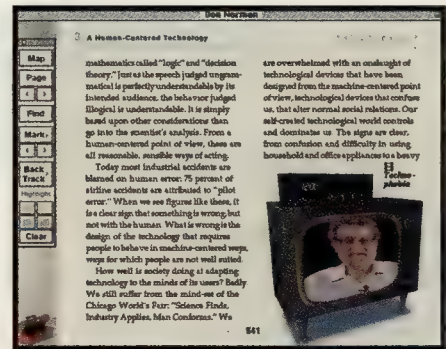


Norman gives a QuickTime lecture on the design plusses and minuses of electronic books, including his own.

you figure out how to install your sound card? Don't blame yourself, says Donald A. Norman, Apple Fellow and cognitive scientist at UC San Diego. You're just one of the millions of human victims of poorly designed machines.

Norman has written about the problems presented to users of all sorts of technology, from cars to appliances to pencil and paper. His three best-selling books on creating workable, human-centered machines — *The Design of Everyday Things*, *Turn Signals Are the Facial Expressions of Automobiles*, and *Things That Make Us Smart* — are the bibles of humanistic design.

It's Norman's contention — and anyone who has tried to program a VCR will agree with him — that "the technology for creating things has far out-



Click on the TV screen to hear Norman's comments.

Person titles, every few pages a video of the author pops up to comment on the text. Norman's avuncular, slightly bemused lecture style fits the topic perfectly. He even gives his own critical assessment of the e-book interface.

Probably the most amusing part of the disc in the Gallery of Unfindable Things — a selection of impossible designs, like the vertical sink pictured here. These wacky objects may not exist in real life, but Norman uses them to illustrate design no-no's that you'll encounter in things we do use every day.



The Gallery of Unfindable Things points out common design fallacies. This vertical sink illustrates an impossible design.

The First Person discs show that multimedia can actually be put to good use. *Donald A. Norman: Defending Human Attributes in the Age of the Machine* is a worthy addition to the series.

— Steven Anzovin

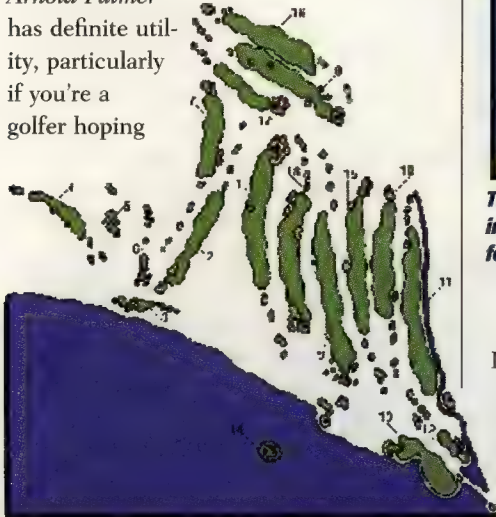
Depth of Information:	Visuals:
●●●●●●●●	●●●●●●●●
Interface:	Audio:
●●●●●●●●	●●●●●●●●
Overall:	●●●●●●●●

The American Golf Guide

Windows \$59.95 (call for lower introductory price)

DataTech Software Harrisburg, PA Phone: (800) 556-7526

It ain't dazzling, but DataTech's *American Golf Guide Presented by Arnold Palmer* has definite utility, particularly if you're a golfer hoping



American Golf Guide shows you the course layout for the Coeur D'Alene Resort Golf Course in Idaho. The arrow points out the course's unique floating green.

to explore the U.S. 18 holes at a time. More than 14,000 courses (public and private) are profiled. In many cases, however, this is as simple as a course listing containing a smattering of key facts.

The CD-ROM includes more than 500 photos of courses, but that's hardly overwhelming when considering the number of courses described (only 3-4% of the 14,000 are represented visually).

American Golf Guide also packages 15 minutes of video footage taken from helicopter fly-bys of 15 courses. It would be preferable to watch these clips at a smaller and better-defined resolution, but that option isn't available. The video picture is larger, but not as impressive.

The program is at its best when it plays to its main strength: information. A number of course layouts and club scorecards are given, as is accommodation info (when the course is part of a resort). Golfers can also access pro tour listings (PGA, LPGA, Senior PGA, and Nike) in case they want to check out pro action.



The floating green is pictured in an accompanying photo illustrating why golfers have to take a ferry ride before teeing off.

The search functions are well-planned. You can create listings of courses within a specified state or region. For the traveling golfer, pertinent data (weather conditions, area attractions, and so on) tells you everything you need to know about the courses in question. (The one exception is green fees, which aren't listed...perhaps because they're often subject to change.)

Hole	10	11	12	13	14	15	16	17	18	In	Total
Blue Tee	438	530	208	313	154	481	417	257	451	3285	6309
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Handicap	9	2	14	16	12	6	10	18	4		
Par	4	5	3	4	3	5	4	4	4	36	71
Par	4	5	3	4	3	5	4	4	4	36	71
Handicap	10	2	18	16	12	4	8	14	6		
Red Tee	258	395	133	171	123	373	313	208	336	2308	4446

Also included: a detailed club scorecard.

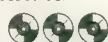
American Golf Guide is a fairly comprehensive collection of information. Hopefully, a future edition will contain more photos from more courses. That's about the only thing it needs, besides a greater contribution by Arnold Palmer, whose sole involvement with the program is a brief endorsement.

— Phill Powell

Depth of Information: Visuals:



Interface:



Audio:



Overall: 4 out of 5 discs

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Product Information Number 112

Smithsonian's America

Windows \$29.99

Creative Multimedia Portland, OR Phone: (503) 241-4351

You know the filmstrips you had to watch all the time in elementary school? The ones with the "bink" that told the projectionist when to advance the frame? Well, *Smithsonian's America* is the CD-ROM equivalent.

In its defense, the program is actually a multimedia catalog of an exhibition of the same name that was mounted

Smithsonian's America — the disc as well, presumably, as the exhibition — is that it tries to cover too much info, and can therefore only briefly touch on each topic. When a reference disc covers the history of television by mentioning just "I Love Lucy," "Sesame Street," and "Star Trek," you know you're exploring nothing more than sound and image bytes.

timeline of U.S. presidents and first ladies, the women are rarely mentioned — even dynamic characters such as Dolly Madison are neglected. The information on James and Harriet Buchanan doesn't mention that they were brother and sister, and that he was the only bachelor president. And believe it or not, no reference is made under William McKinley that he was assassinated. Maybe Japanese museum-goers don't need to know, but we do.

Although there are some graphic photos of the Civil War and a few horrifying diagrams of African slave ships, gritty recent history is glossed over —

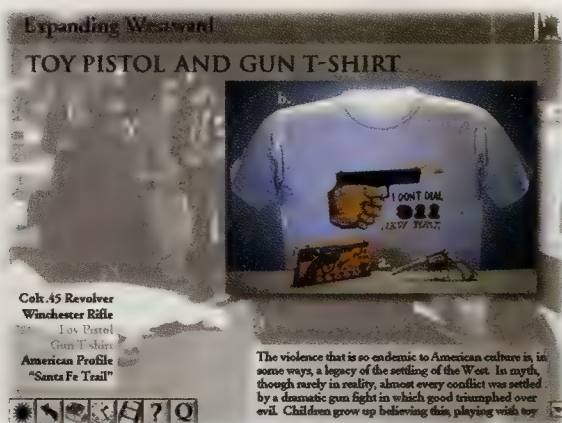
little mention is made of the Vietnam War, and scandals such as Watergate are ignored.

For each topic, you can listen to a mini-lecture on the subject or watch a slideshow of photographic backgrounds and captions. Once the discussion is complete, there are often related exhibits — ranging from school desks to

Dorothy's ruby slippers to a suffragette's cape. You can also listen to occasional songs as well as see (again all-too-brief) profiles of usually unknown, but nonetheless very influential, Americans.

And although there's something wrong with jumping from Bing Crosby to Michael Jackson in a discussion of popular music, you can't dislike *Smithsonian's America*. It may be frustrating, but it's also intriguing and sometimes informative. More than anything else, it leaves you wondering what the Japanese must have thought of the real exhibition.

— Leslie Mizell



A discussion on the Old West and its influences leads you to an exhibit on inner-city violence.



Woodstock comes into play during an exploration of the history of denim.



Some of the profiles highlight forgotten Americans such as Oscar Micheaux, a pioneering filmmaker.

at the American Festival Japan '94.

Boy, those Japanese must have an even more skewed view of us now than they did before! The problem with

However, it's a great idea to have this type of multimedia catalog for great exhibits. Think of being able to visit the King Tut exhibit almost 20 years after it toured the U.S. Or being able to visit an exhibit that's logistically out of reach, such as the collection of forgeries that was held a few years ago in London's British Museum. It's an art-lover's and historian's dream!

But hopefully the Smithsonian's America exhibition wasn't as superficial

as the information on this disc. Like those filmstrips in junior high, the information you receive is often sanitized, trivialized, or unusually selective. In a



Visit Hawaii CD

Mac/Windows

\$8.95

Visitor Communications Technologies Woodland Hills, CA

Several CD-ROMs have tried to package Hawaii's sundry wonders in multimedia form, but none approaches the mark as closely as this product. *Visit Hawaii CD* ("the official travel planner of the Hawaii Visitors Bureau") benefits enormously from the contributions of different photographers, publishers, and record companies. Granted, this added source material comes at a price: users will encounter plenty of plugs for island-oriented books and albums, but even these "commercials" are well executed. They look great and contain necessary ordering information.

The interface itself is gorgeous, enhanced with bright colors and floral patterns. Getting around is a tropical breeze, which is important since many of

the categories are many menus deep. Although the audio is inconsistent (some sections are narrated — some twang the familiar strains of Hawaiian music), everything adds to the lush, relaxed atmosphere.

Visit Hawaii CD's information base begins with the standard hotel/restaurant/activities info you'd expect from a product trying to win your vacation dollar. It's the added material, however, that makes the disc shine, like a mini-glossary of Hawaiian Pidgin explained through narrated single-panel cartoons, an essay by Jack London on the thrills of surfing, and old black-and-white photos of Hawaii's past.

To be fair, other Hawaii CD-ROMs (reviewed in previous issues) are respectable. Still, *Visit Hawaii CD* outdistances all those we've seen. To order, send a check or money order to Visitor Communications Technologies, P. O.



In this sub-menu for the "Hawaii Visitors Bureau" section, click on "About Hawaii" (top row, far left) to be whisked to another menu with 14 categories of info. This product is rich.

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—Phill Powell



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Smithsonian Institution Dinosaur Museum

Windows/Mac \$59.95

Software Marketing Corp. Phoenix, AZ
Phone: (602) 893-3377

The *Dinosaur Museum* doesn't roar onto the CD-ROM market. It chirps.

In a way, this is appropriate. As you learn from this disc, scientists believe dinosaurs made the chirping sounds of birds rather than the roaring sound of mammals. But to compete with other titles, this one needed to roar.

This disc does roar in one important way: You learn a lot about dinosaurs in the museum's library, conservatory, and game room.

The library takes you back to the three dinosaur eras. You can study skeletons and scientific models of dinosaurs, or you can enter the museum room. Click on hot spots to learn about dinosaur sizes, names, eras, and fossil



The museum room can teach you many facts, including how to pronounce a dinosaur's name.

discoveries. The conservatory gives you the overall picture about dinosaur myths, landscapes of the dinosaur eras, and a who's who of dinosaur discoveries.

Once you've learned lots about dinosaurs, enter the game room to test your knowledge. But don't expect to stomp through these multiple choice and

true-false questions. Even the beginner's game requires knowing your dinosaur facts.

This sounds like an exciting and informative program, right? Yes...and no. It tends to be a bit...boring. Why? Two reasons: limited action (who needs the soundless old *Valley of Gwangi* after we've all seen *Jurassic Park*?) and too much reliance on text.

The meat of the information is often hidden in hard-to-read text blocks. Small screens, smaller print, and dark backgrounds inhibit readability.

It's not that *Dinosaur Museum* isn't good. A year or two ago, the quality graphics and depth of information would have made this disc roar. Today, it only chirps.

— Dean H. Remminger



Home Gourmet

Windows/Mac \$39.95

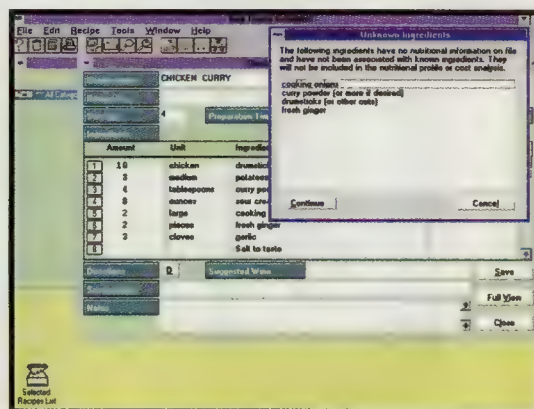
Softkey Cambridge, MA Phone: (800) 227-5609

I was once employed by a company that converted printed documentation to CD-ROM. The CEO often gave inspirational talks on how electronic books would soon replace printed pages. This product provides evidence that such a transition is not yet ripe. I wouldn't trade any of my cookbooks for this clumsy collection of recipes, lists, and facts.

Home Gourmet, a new title in Softkey's "Key" product line, is another archaically designed, disappointing attempt at making our lives easier. First, the interface is dull and tedious — and you have to open sections separately (e.g., "A-B, C-D, E-H,"). The search capabilities are also cumbersome.

Especially annoying is Softkey's claim on the packaging that *Home Gourmet*'s "10,000 first-rate recipes" are

"from premier chefs." Let's see, there are three recipes for Pigs in a Blanket, along with other culinary masterpieces such as



A typical entry in Home Gourmet is the recipe for Chicken Curry; there's no information available under Nutritional Analysis, Suggested Wine, or Serving Ideas.

Ants on a Log, Dinner in a Can, Edible Dough, Bean Loaf, and Jello Jigglers, Creamy Style. In scope, *Home Gourmet* is a little closer to a 1970s' PTA cookbook.

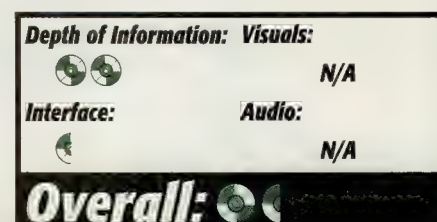
The various features of this CD-ROM include access to a Nutritional

Analysis, Cost Analysis, Suggested Wine, and Preparation Time. Unfortunately, these options are rarely available: the

corresponding information box is blank or *Home Gourmet* will report the data as "unknown." The Recipe Manager, which has a glossary and seasonings menu, allows you to add new recipes, adjust servings, and print a shopping list. Although these features are sometimes helpful, they're not important enough to make this CD-ROM a necessary addition to your kitchen library.

Finally, we must note the size of *Home Gourmet*. It weighs in at a whopping 7MB. As if I needed another reason to "can" this disc.

— Anne L. Tucker



Automania

Windows

\$49.95

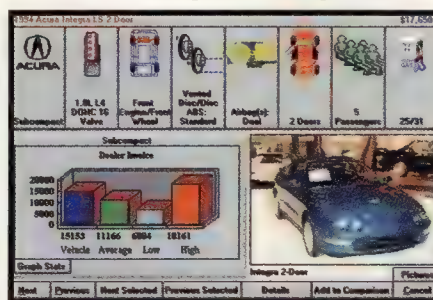
Cornerstone Publishing/Sierra Coarsegold, CA
Phone: (818) 955-8850

Few things are as angering, confusing, and potentially costly as buying a new car. I should know; I sold them for a while, and I was taught how to make sure new-car customers were kept off balance and — most importantly — paid top-dollar for their new vehicle.

As tends to be the case with increasing regularity, though, CD-ROM help is on the way. *Automania* is your one-stop source for new- and used-car information. The package includes lists of features and options for just about every new car you might be considering (including such exotics as Lotus and Ferrari), pictures of every model, and a limited quantity of videos showing the cars on the road.

But the most important fact

included on each model is that coveted and useful tidbit, the dealer's invoice price. You can commonly pay as much as \$15 for these quotes through online



I actually bought this car, with help from Automania's invoices and features lists.

seices or through magazines. *Automania* gives you hundreds of them for the price of the package.

Searching the extensive database of facts isn't as easy as it could be, though: The menuing interface isn't particularly intuitive, and this program runs like a snail even on my VLB 486/66 with 8MB RAM. Considering that the recommended minimum system is a 386 with

4MB RAM, the creeping load times involved in tasks as simple as viewing sub-menus is unforgivable.

Still, the information you'll find in *Automania* is vitally important to any car buyer, and it's presented with sufficient competence to make this a must for any smart shopper.

— Matthew Firme



The list of makes and models you can explore ranges from the tried-and-true to the exotic.



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MULTIMEDIA

Phonebooks on CD-ROM Review
April 1994

The experts agree. Select Phone's listings are the most accurate and comprehensive.

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New Media Magazine reports Select Phone is the 8th BESTSELLING CD-ROM in the country. It ranked as the number one business title. Imagine. People going nuts over a phonebook! Seems odd — until you begin to realize all you can do with it. Then you wonder how they can ever keep it in stock. Let's begin with instantaneous (and affordable) access to the largest, most powerful database in the world — the US white page and yellow page directories on CD-ROM. Over 80 million valuable names, addresses and phone numbers. Businesses and residences. The works. Now think about being able to access these listings from *any angle* — select a listing by keying in some-

one's name, street, zip code, and you can even work backwards from a phone number. Punch in a business heading like "landscaper" and up pop all the landscapers from New York to LA. Now *count them!* You can break them down by state, zip code or area code. And once you've narrowed your list, you can download them to your own database, word processor or contact management software.

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PGA Tour Golf 486

DOS \$59.95

Electronic Arts San Mateo, CA Phone: (800) 245-4525

Anytime a new PC golf game is released, the same question is on everyone's lips: "Is it as good as *Links 386 Pro*?" That's been a no-brainer in the past, but the release of *PGA Tour Golf 486* has made it a much less cut-



One of the most exciting features of the game is the ability to play against – or as – one of nine PGA Tour golfers.

and-dried proposition. It looks as good as *Links*, its CD-ROM format means it takes up a paltry amount of hard-drive space, and it allows you to compete vicariously against the best players on the PGA Tour. It even features nine fully digitized golfers who crush drives and sink putts; in fact, you can even play as one of them.

Links 386 Pro doesn't do any of those things, but for golf fans who treasure realism in a golf sim above all else, it still remains the game of choice. Only *Links* lets you adjust the stance of your player's feet, change the swing plane, record a game that can be saved to disk for use by another *Links* owner, and compete on more than a dozen of the world's finest courses, from Mauna Kea to Pebble Beach. That doesn't mean that *Links* fanatics won't want to own *PGA Tour Golf 486* – far from it. It simply means that the aims of the two programs are so different that they complement each other more than anything else.

Veterans who remember the

abysmal 16-color VGA graphics of the original *PGA Tour Golf* are in for a real surprise with 486. The digitized SVGA graphics are outstanding, and once you get past the pokey load times for each hole (you'll only have to deal with that



Before selecting a course, check out the video footage for a history of the course.

before teeing off – subsequent redraws are impressively fast), the game plays very smoothly.

The swing bar in *PGA 486* is unique among golf games, designed to resemble the motion of an actual swing. At first it's a little distracting to see the oblique swing bar right beside your player, but you'll get used to it quickly enough. And because the player animation takes place after you're through tapping the space bar or clicking the mouse – unlike in *Links 386*, where the two events are simultaneous – you can sit back and enjoy the results of your handiwork.

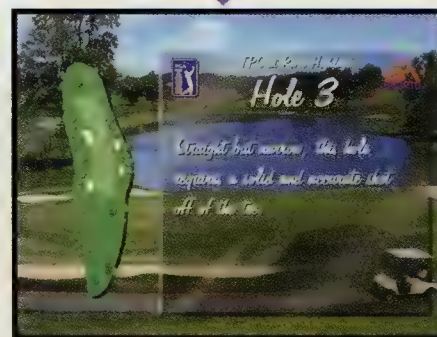
You play as yourself or as one of the nine pros – Tom Kite, Craig Stadler, Jeff Sluman, Fuzzy Zoeller, Brad Faxon, Davis Love III, Mark O'Meara, Bruce Lietzke – in a casual round, or try your hand at making the cut in one of three tournaments: The Las Vegas Invitational, The Players Championship, and The Canon Greater Hartford Open. While it's nice to play with three other pros in a foursome, you'll most likely decide to go it alone in order to minimize the time

between shots.

Electronic Arts tried to give *PGA 486* the feel of a televised tourney by having an announcer (voice only) provide commentary, but the generic nature of his remarks keeps it from being con-



When you get to the green, use the "bull's eye" feature to aim – and don't forget to listen to the announcer's tips on how your putt will break.



Before teeing off at each hole, you're given an overhead view and a few general strategy tips.



Crush a drive, and you can use the Instant Replay option to enjoy it all over again.

The Courses



PGA Tour Golf 486 lets you play on any of three great Tournament Players Courses: Summerlin, site of the Las Vegas Invitational; Sawgrass, the challenging course chosen as for The Players Championship; and River Highlands, long-time site of the Canon Greater Hartford Open.

vincing, and it seems as if he only pipes up when you reach the green. There are crowd noises, too – you'll hear "oohs" and "aahs" when you miss a short putt, cheering when you sink a long one, and polite applause when you tap in a gimme – but all it really serves to do is make you wonder just *where* all those people are. And while the digitized golfers do have unique reactions for various events, these are pretty limited: Stadler and Kite

may strike their own distinct poses after a tee shot, for instance, but they never vary, regardless of whether they crushed a drive or hooked one into the rough.

It would have been nice if EA had gone to the trouble of including spectators, an announcer you see from time to time, and a greater variety of animations for the golfers – they used only around a third of the potential storage space of the CD-ROM. But there's so much fun

to be had competing against the pros in PGA 486 that it's easy to overlook these shortcomings. For PC golf fans, this is a must-have disc.

– Stephen Poole

Entertainment Value:	Visuals:
●●●●●	●●●●●
Interface:	Audio:
●●●●●	●●●●●
Overall: ●●●●●	



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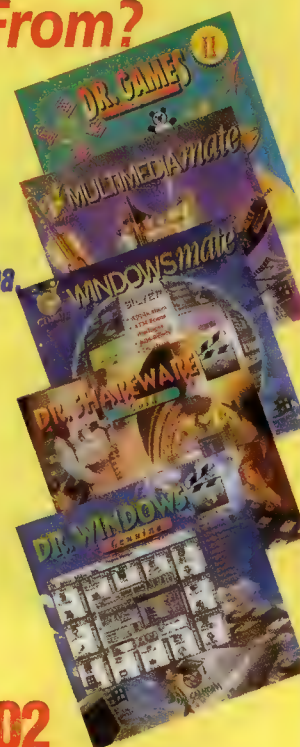
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Who Killed Taylor French?

Windows

\$29.99

Creative Multimedia Portland, OR
Phone: (503) 241-4351

Did she have it all? Taylor French was an attractive young investigative reporter whose recent stories were even considered for a Pulitzer Prize. Respected by her colleagues and readers, French's career was on the fast track.

Who Killed Taylor French? The Case of the Undressed Reporter is the fourth installment in a series of "Who Killed" games from Creative Multimedia in which players sift through evidence as they try to solve murders. One of the ingredients that makes these games both fun and challenging is the non-linear way in which they are played.

This game involves more than meandering from one witness to the next. It's played on a timer. In real life,

most murders are solved within six hours, if they're solved at all. In the game, each interview or investigation costs time. If you can't name



The first step to solve this crime is visiting the scene to look for details. This helps you determine the veracity of your suspects' statements.

and prove who committed the murder before the allotted hours runs out, the case goes unsolved. The script also reflects a great deal of thought and skillful plotting. In order to solve the crime, you must pay attention to *how* suspects tell their stories, and what they say.



Video footage is grainy. If you look hard, you see a suspect in front of an aquarium.

Details are important and must be corroborated with physical evidence.

Judged on its own merits, *Who Killed Taylor French?* is a good game. This is, however, the fourth game in the series. Creative Multimedia has not improved the video quality.

The script is not as sharp as earlier ones, and a few of the actors are fidgety. The developers showed an eye for innovation when they started this series; they should show concern for quality as they continue it.

— Stephen Kent

Entertainment Value: **Visuals:**



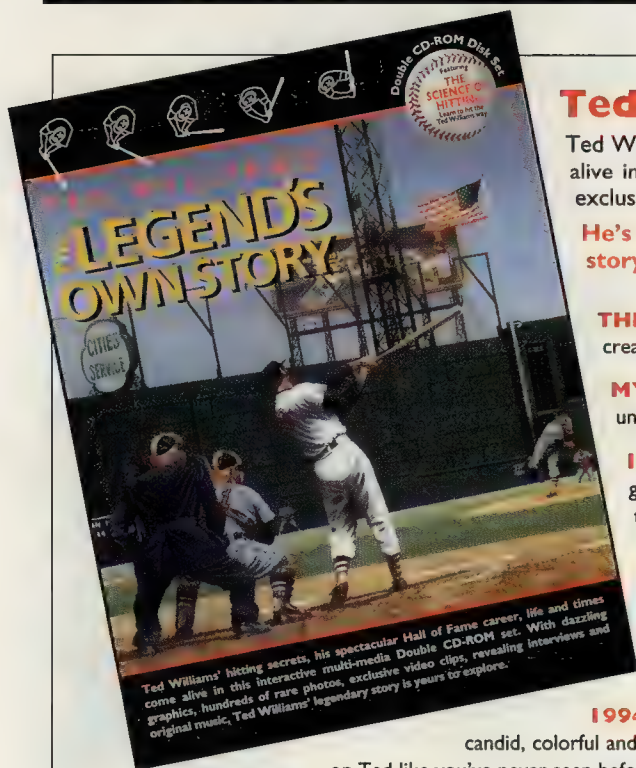
Interface:



Audio:



Overall:



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The Cartoon History of the Universe

Mac/Windows under \$40

Putnam New Media Reston, VA Phone: (800) 225-6585

Although "Comic Book History of the Universe" might have been a more accurate title, this CD-ROM achieves something teachers have attempted for years: It makes the study of history inviting to youngsters. I suggest "comic book" because the bulk of this program looks like splashy comic-book art with simple animations sprinkled throughout. "Cartoon" implies active, constant animation.

Cartoon History, based on Larry Gonick's book, stars a mustachioed little character (The Amazing Professor) who

zips back and forth through history in a tiny time machine. The main component of *Cartoon History* is a seven-volume encyclopedia covering topics from 13 billion years of human history. A "WayBack Slider" (sounds like Mr. Peabody's time machine) lets you choose volumes and topics for perusal.

Kids should respond well to the way history is presented here: Gonick's engaging sense of humor has a slight edge without growing overbearing or caustic. More importantly, children won't detect any trace of condescension.

Road to Ruins

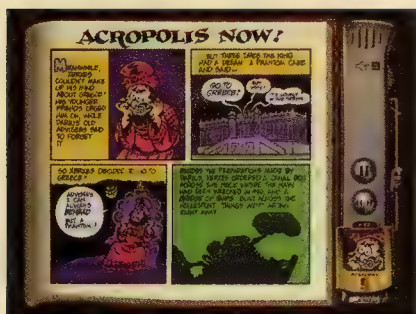
Let's say you want to explore The Acropolis. *Cartoon History of the Universe* gives you several ways to learn about this architectural wonder.



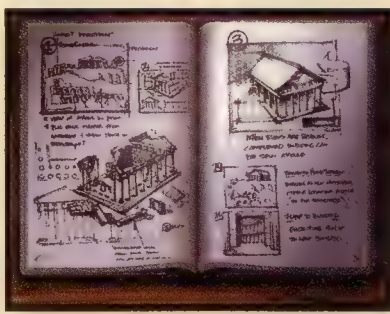
First, the Professor introduces you to the three buildings of the Acropolis.



Next, a reconstruction game lets you pick up the pieces and restore them to their rightful positions.



For another take on history, you can check out Larry Gonick's comic book treatment of the subject.



Finally, for added background, a scrapbook contains artist's renderings used in the creation of *Cartoon History*.

As a matter of fact, Putnam was perceptive to the possibility that parents could find some of the treatments *too* grownup (i.e., containing suggestive references). Putnam has thoughtfully added a "Parental Guidance" feature that can be selected to make sure kids aren't exposed to unwelcome insights.

There are 17 games included, too, to spice up the fun. Undoubtedly the most arresting of these amusements takes place during the tour of the Pyramid of Cheops. Kids are encouraged to follow ancient custom by extracting a dead person's brain through their nose. It's really a variation on the old buzzing board game "Operation," where players tried to avoid bumping their medical instruments against cavity walls.

Another game borrows from an earlier amusement. This one takes place near the entrance of the Acropolis and dresses up the familiar peg-jumping triangle (the idea is to leave one peg remaining on the board).

A more useful diversion asks you to rebuild the Acropolis. Individual columns, walls, and roofs are used to return the ruins to their original splendor. It's a nifty way to make the ancient live again in young minds.

These games (and others like them) are good fun, and may have some actual instructional value, but the meat of the program remains the seven-volume encyclopedia, combining 2000 animations with more than five hours of audio. Navigating human history is enabled by a helpful encyclopedia index and an interface kids should enjoy.

If *Cartoon History* were positioned as a strictly educational CD-ROM, eyebrows might raise at its irreverent tone. As an entertainment product, however, it mixes humor and knowledge into a heady brew that's appealing to kids of all ages.

—Phill Powell

Entertainment Value:	Visuals:
●●●●●●●●	●●●●●●●●
Interface:	Audio:
●●●●●●●●	●●●●●●●●
Overall: ●●●●●●●●	

Monty Python's Complete Waste of Time

Windows \$59.95

7th Level Los Angeles, CA Phone: (818) 547-1955

Yes, fans, it's been 25 years since Monty Python convulsed the world with its unique brand of limey lunacy. What better way to celebrate this glorious anniversary than to take Python into the interactive age with the aptly titled

dictable intervals, John Cleese pops up with a clue about "the secret to intergalactic success," a contest on the disc. If you're the first to solve it, 7th Level will send you a new Pentium MPC.

"Right," you say, "and pigs can fly..."

Pythonizer, a Windows customizing utility. Not only can you change any icon to a can of Spam, or other Pythonesque objects, but you can add nasty noises to any Windows event, impose absurd and ribald screen savers on your helpless machine (sorry, female Pythonians, there's no ribaldry that will appeal to you), and even stare in feigned shock at naughty Python wallpaper.

Has *Monty Python's Complete Waste of Time* captured the essence of Python as we know it? Yes, the true lunacy is here, though heavily slanted toward Terry Gilliam's particular brand of grotesque humor.

Your Phrenological Launching Pad



Play "Spot the Looney" in the Exploratorium.



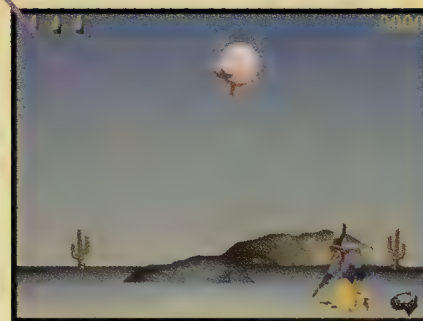
The Corridor is completely maddening.



You'll have to use your head to get around the various Python environments.



The unexpected is absolutely guaranteed.



Pork byproducts mean death in The Pig Game.

Monty Python's Complete Waste of Time?

Entirely new and tasteless Python environments, based on original animation by Terry Gilliam, have been specially created for this disc. You'll experience the Exploding TV Room (grotesque), the Corridor (frustrating), the Stage (boring), the Exploratorium (absurd), the Brain (inane), and the mysterious Inner Space (just plain silly). Each environment has its own shoot-'em-up game, like "Spot the Looney," and a Python trivia quiz. At unpre-

Actually, pigs do fly (and don't stand under them) in one of the truly obnoxious arcade games here. Also look out for the gopher and the bean-fed chicken. Cognoscenti of Python symbolism will know what objects to avoid, though it won't be easy.

When you tire of dodging disgusting falling things, you can tune in smidgens of your favorite Python skits, including such classics as *The Dead Parrot*; *The Cheese Shop*; *Nudge, Nudge*; and *The Argument Clinic*.

Luncheon meat may not have been on your mind before spinning this disc, but you won't be thinking of anything else after hearing the infamous Spam Song a few dozen times.

Speaking of Spam, if you can't get enough of the greasy stuff, you can plaster it all over your (or someone else's) screen with the Desktop

Will it satisfy your need for something completely different? Possibly not — after wasting many golden hours with this disc, you'll want to kill yet more time by going back to the video and films for more of the Monty madness.

— Steven Anzovin

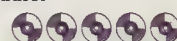
Entertainment Value: Visuals:



Interface:



Audio:



Overall: 5 out of 5 stars

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Flying Nightmares

Mac/PowerMac \$49.95

Domark San Mateo, CA Phone: (800) 695-GAME

If you hankered to pilot a Harrier jump-jet after watching Arnold use one to blow away the bad guys in *True Lies*, you'll almost get your wish with Domark's *Flying Nightmares*.



Review your mission options and attack plans from the command post.

A ruthless military junta (is there any other kind?) has seized control of East Timor, a strategic island in the Pacific. A carrier task force, including the legendary Flying Nightmares Harrier squadron, has been sent to take out the bad guys. You define the missions and coordinate the battle plans of Marine amphibious assault craft, helicopter gunships, ground forces, and your ace-in-the-hole, the Harriers.

The action really gets underway

when you strap into a Harrier, an advanced fixed-wing fighter with some of the abilities of a helicopter. Using a system of vectored nozzle thrusters, Harriers can take off and land vertically, and hover motionless in the air. Real Harriers are notoriously among the hardest aircraft to fly, and you'll taste some of that orneriness in this accurate simulation.

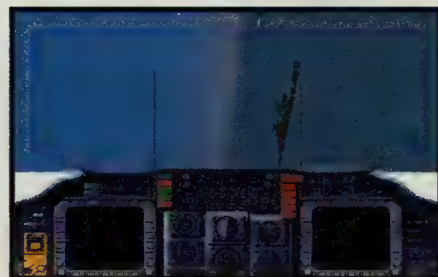
Choose a mission, pick your weapons from a selection of smart bombs, tankbusters, cluster bombs, high-speed cannon, and electronic countermeasures. Then jump off the carrier deck and head towards land. The special abilities of the Harrier make it possible to skim in at treetop level, then hover overhead to deliver a variety of strikes at your target. Or you can baffle airborne adversaries by flying backwards until they overshoot you and are in your sights. Missions become more difficult — and crucial to the success of your effort — as you advance in skill.

Flying Nightmares was the first

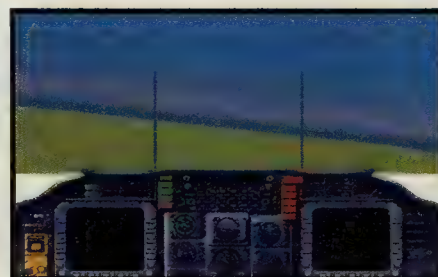
game released for the Power Macintosh. It's an open secret that Domark needed a lot of behind-the-scenes help from Apple to get the game out in time for the March 1993 PMac launch. Veteran Mac users will cringe at some of the unMac-like aspects of the interface, but the real shortcoming of this game is that it



Take off from a carrier to begin your mission.



Master the controls in your state-of-the-art cockpit — mission success depends on it.

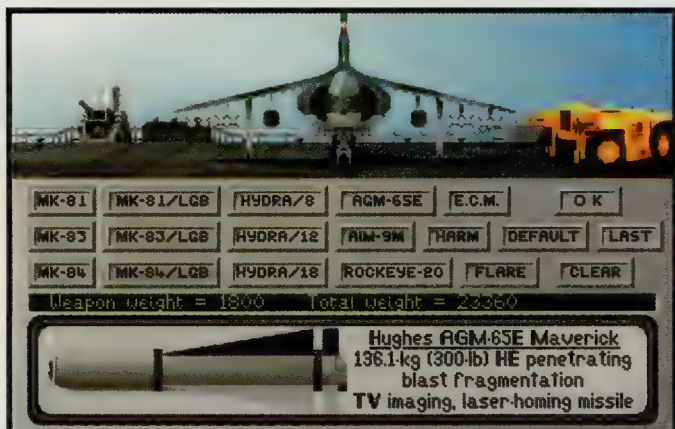


Watch out for trees and mountains as you skim toward your target.

doesn't utilize the PowerMac to its full potential. The 3D polygon graphics are speedy, but indistinguishable from those on any good 486 flight sim. The smooth, texture-mapped, anti-aliased graphics that gamers expected from native games are not to be found.

Domark can't be blamed for not revolutionizing the gaming universe with its first PMac product. *Flying Nightmares* is a solid, respectable military flight simulation that will give you a real taste of flying what, after more than a decade, is still the most radical warplane in the world.

—Steven Anzovin



Select your Harrier's armaments from a wide array of smart bombs, missile, and countermeasures.

Entertainment Value:	Visuals:
●●●●●	●●●●●
Interface:	Audio:
●●●●●	●●●●●
Overall: ●●●●●	

Interactive Music Game

Windows

\$49.95

Microforum Toronto, Ontario Phone: (800) 465-CD CD

This is a Windows-based board game with video and sound that teaches basic music concepts. Two to four players may compete, or one person may play against the computer. A player wins by answering questions and moving all the way around the board once, jumping, bumping, and drawing Chance cards.

There are six musical categories, each section with 72 cards: musical notes; words (memory devices); math (note and rest duration); musical signs and symbols; rhythm; and music makers (strings, woodwinds, brass, percussion).

It takes 15-20 games to go through all of the question cards without repeating. You can load and save games, and start new games with all of the

questions or only unasked questions.

Apart from the game, there are song-length video performances by Oscar Peterson, Liona Boyd, and the Canadian Brass.

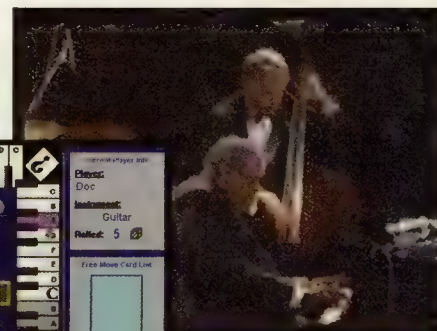
Video playback may be choppy on slow 486s and 386s, but the program will work well with single- or double-speed CD-ROM drives.

Another screen lets the player listen to sounds from typical orchestral instruments. These samples are fine, but sound as though they were generated by a keyboard.

Interactive Music Game teaches some useful concepts, but also includes irrelevant trivia. And while some questions ask the user to click the mouse in time with a rhythm, the count-in is not timed properly, making this almost impossible.



Think of this disc as an interactive board game with video and sound enhancements.



Oscar Peterson livens things up with a hot piano jazz number.

The *Interactive Music Game* is fun and useful for beginners; it

should be seen as reinforcement of, not a replacement for, personal musical instruction.

— Blake Lambert

Entertainment Value:	Visuals:
Interface:	Audio:
Overall:	

The Even More Incredible Machine

DOS

\$49.95

Sierra Bellevue, WA Phone: (800) 757-7707

There's an old board game for kids called "Mouse Trap," in which you catch plastic mice by turning a crank that releases the ball that rolls down the stairs that makes a plastic diver fly through the air knocking another ball through a hole in a bathtub and down a shaft where it strikes a lever that springs the trap that catches the mice. Fun game.

Sierra has captured the spirit of "Mouse Trap" in a very clever CD-ROM called *The Even More Incredible Machine*. In this game, you create mechanisms for throwing basketballs into hoops, breaking fishbowls, and popping balloons using such ludicrous tools as mice-powered

conveyor belts, trampolines, spring-powered boxing gloves, bowling balls, and bellows.

One of the easiest puzzles has a bowling ball in the bottom left corner of the screen and a hoop in the top right corner. Using four trampolines, players are supposed to get the ball through the hoop. Obviously, the puzzle is solved by spacing the trampolines out so that the ball's velocity increases with each bounce.

In tougher puzzles, players have to find ways to bounce balls out of tall shafts, through mid air, and into a hoop across the monitor. Some of these tasks involve powering conveyor belts with windmills or generators. As you can tell, the puzzles are wildly creative — after all, this is *The Even More Incredible Machine*.

Before you run right out and buy it, however, there are a few things to consider. It takes a great amount of creativity to make a couple hundred original mouse-powered puzzles, so don't be surprised if puzzles start looking a little similar or the game becomes a tad



The baseball starts the vacuum. The bowling ball turns on the flashlight, which lights the candle — which starts the teapot boiling. Simple.

monotonous. This game will not return you to the awe-struck discovery years of your childhood, but it's a fun-filled return to the machines that usually only function in a child's mind.

— Stephen Kent

Entertainment Value:	Visuals:
Interface:	Audio:
Overall:	

This is a Bible.



So is this.



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5NGL1

NHL Hockey '95

DOS \$59.95

Electronic Arts San Mateo, CA Phone: (800) 245-4525

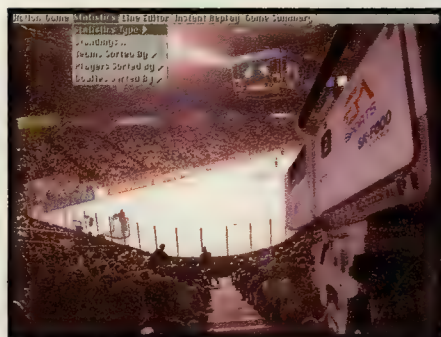
The timing couldn't have been better. With the NHL players currently locked out and the league's opening night nowhere in sight, hockey fans across North America are frantically looking for ways to fill the winter void. Enter *NHL Hockey '95*, EA Sports' hockey simula-



Reassign players to different lines by dragging their jersey to the desired destination. *NHL* and *NHLPA* licenses ensure you're dealing with real teams and real players.

tion that features captivating game play and a broadcast-style presentation that brings the sights and sounds of a professional hockey telecast to your PC.

Each game, whether an exhibition, league, or playoff contest, begins at the sports desk of EA Sports studios. A simple point-and-click interface allows for easy movement through the game's pull-down menus, and minimal access time keeps you from twiddling your thumbs when you want to jump from one area to the next. Once you set the



Beautiful shots between periods, and while the game is paused, add to the atmosphere as you work your way through the pull-down menus.

match-ups — a quickstart option lets you dive right into an exhibition game — you're taken to the arena for scouting reports and have the opportunity to rearrange your lines before the puck drops. Realistic studio music, rink sound effects, and the digitized voice of an arena announcer add finishing touches.

While the game's appearance is impressive, it's the play that will keep you coming back. Controls are responsive, simple, and designed in such a way that allows advanced players to incorporate more intricate maneuvers like drop passes and shot blocks. Seasonal leagues accommodate 26 people to manage teams, and pit them against each other



The on-ice player animations accurately simulate the real thing.

over an 82-game schedule, while the playoff series goes straight to the hunt for the Stanley Cup. The only problem surfaces when you develop a solid mastery of the controls and become too powerful for the computer opponent. Even then, the game is still fun to play. But after a season of cakewalks, you may start looking for a more formidable opponent.

Another aspect that makes the game's seasonal and playoff features so engrossing is the statistical manager. After the conclusion of each game, you find yourself checking the list of league



Create your own players from scratch, and customize everything from their names to their player ratings in 16 attribute categories.

leaders in a variety of categories to see how your team, top players, and goalies stack up. Each club has its own database, which must be merged with the other 25 in the master database, but "owners" can also export their team's data onto a floppy for use on another copy of *NHL Hockey '95*. Trades can be completed between two human-controlled teams during seasonal play, but

only until the trade deadline of March 21. The central registry selection lets you customize the master databases by moving players from one team to another, signing free agents, or creating players from scratch.

If you own the floppy-disk version, *NHL Hockey*

(released this time last year), you'll be challenged to find enough new material on the CD-ROM version to convince you to buy. If you're looking for an entertaining title with staying power, or even experiencing withdrawal symptoms, you owe it to yourself to give *NHL Hockey '95* a tryout.

— Doug Brumley

Entertainment Value:	Visuals:
Interface:	Audio:
Overall:	

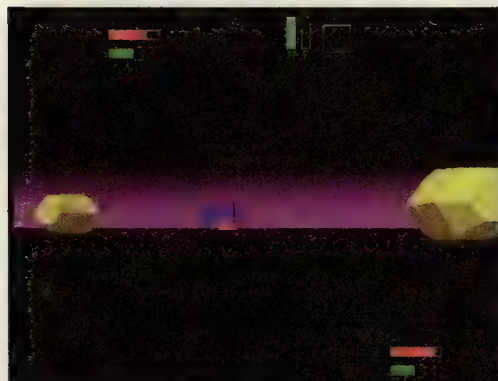
Spectre VR

Mac/Windows \$69.95

Velocity San Francisco, CA Phone: (415) 392-HELP

You're on a futuristic foray into cyberspace where you must stay alive by avoiding "Radar Cloaked Robots, flying hunter-killers," and "bubbling pools of

enhanced version of a game previously released on floppy disk, was a nice idea. But its "unsurpassed range of features" just don't measure up. There are many "extras" such as the "all new graphics and texture-mapped realism." Realism is a very suggestive word — but not suggestive enough to suspend my belief that a bunch of primary-colored polygons were Hunter Killers or crippling puddles of Cybermud. And to add a disadvantage to the



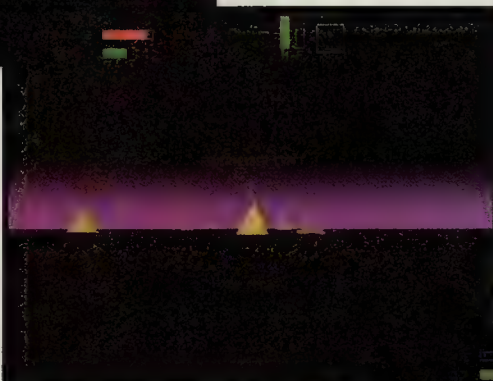
The scenery doesn't change much as you progress.

smart acid." Sounds intriguing, doesn't it? — but that's extent of the thrill after playing *Spectre VR*, an action arcade-style game.

In case you're unfamiliar with cybernet combat, the user's manual includes a novella-narrative about a fellow named Hart and his initiation to this unorthodox style of battle. The end of the story is the jumping-off point into an obstacle-filled struggle for survival in Cyberworld.

Spectre VR CD-ROM, the latest

These yellow polygons somehow don't resemble enemies in cyberspace.



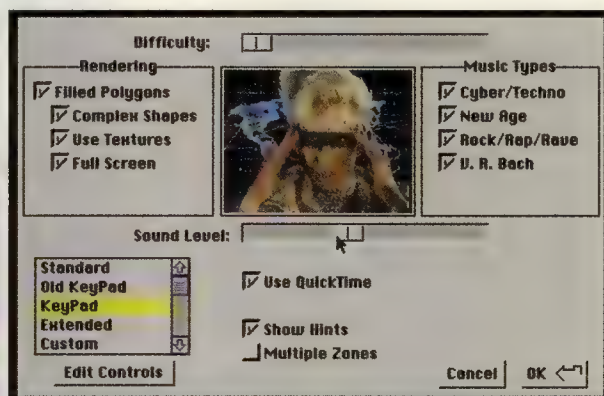
already dull visual, the majority of the screen is black.

Another addition to the CD-ROM version is the "live action video."

Once again, the concept of a virtual reality "Big Brother," who gives you pointers and general information, is unique. The major snag in this scenario, unfortunately, is that your game is timed for extra bonus points. And whenever these video clips of your omniscient pal emerge in cyberspace, game play drags to a "virtual" halt. Meanwhile, the clock

is still ticking. The real disappointment is that this much-touted action-concurrent video, was superfluous and provided little or no help with planning strategy. I recommend that these sequences run independently of game play, which is slow enough anyway (and that's on a 7100/66 PowerPC).

One of the only redeeming aspects of the otherwise boring *Spectre VR* is its option for network play with up to eight participants. While I wasn't able to try *Spectre* on my office network, it's probably safe to say that the game might be more entertaining when playing with a few friends.



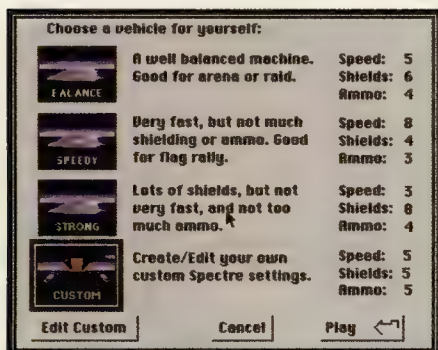
One of several superfluous and annoying video clips.

Spectre VR relies heavily on the willing suspension of disbelief; not for one nanosecond was it ever "frighteningly real." And considering the recent host of fascinating CD-ROM games, many of which were created solely for the platform, *Spectre VR* is hardly a contender.

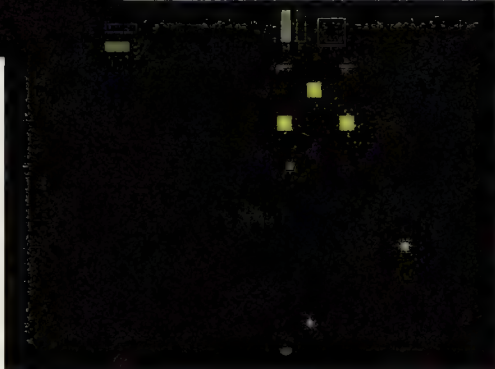
Don't be fooled by

the fancy box — it's a real sheep in wolf's clothing.

— Anne L. Tucker



You can customize your vessel from the control panel to make the game more interesting.



Throughout game play, most of the screen remains dark and relatively empty.



Saturday Night Live: The First Twenty Years

Windows/Mac \$79.95

GameTek North Miami Beach, FL Phone: (800)-GAMETEK

"Saturday Night Live" wasn't expected to survive longer than a season, much less become a part of TV history. But here we are, 20 years later. Despite cast overhauls, rollercoaster ratings, and hostile critics, "Saturday Night



Musical comedy has long been part of "SNL"'s variety mix. Here Steve Martin checks in with "King Tut."



Dennis Miller catches up on his opera, man, in the Weekend Update section.

Live" is still in there pitching.

The CD-ROM celebrating this comedy staple will succeed or fail depending on your expectations. Casual viewers are going to enjoy *Saturday Night Live: The First 20 Years* more than serious fans. Granted, GameTek's two-disc set is entertaining and well-designed, but it only provides a cursory glance at "SNL." The main problem is that when we leave the product, we don't know anymore about the show than we did before.

Bits & Skits



Commercial parodies are represented by gems like "Mel's Car Palace."

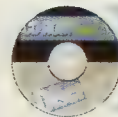


SNL's interface: Clicking on the tickets (center) takes you to the show's main stage.

The show's often brilliant writing is ignored. I couldn't even find a list of writers who've worked on "SNL" (nor are there any listings of hosts, musical guests, or show dates). Why didn't the developers run the entire scripts from some of the best bits?

Committed fans may also have problems with the editing done on the skits before they became video clips. Even the commercial parodies (shorter in length) get trimmed. The surgeries were performed smoothly, but some funny stuff ended up on the cutting room floor.

Twenty years of shows have produced a lot of comedy, so I'm sympathetic to the developer's task of deciding which clips



On the DISC!

Browse through this hilarious collection of video highlights.

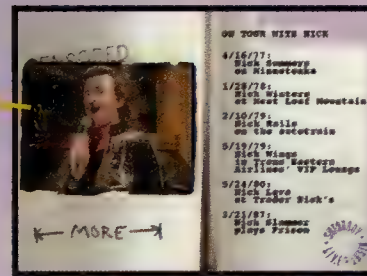
make the final cut. Although we all have our favorite "SNL" moments, GameTek has come up with a fine selection.

It's really a greatest hits type of collection, giving us quick glimpses of the characters the show has sprung into the national psyche (the Blues Brothers, the Coneheads, Wayne's World, etc.).

GameTek's tacked a \$79.95 SRP on the two-disc set. That's the kind of price usually demanded by products catering to die-hard fans. *Saturday Night Live:*



Dana Carvey's dead-on impersonations of Bush and Perot are both showcased in the politics section.



In the skits section, Bill Murray sings it his way.

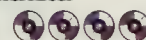
The First 20 Years isn't that type of comprehensive CD-ROM, and it's up to fans to decide whether their "Saturday Night" fever can best be sated by this set or by the numerous compilations cheaply available for less on videotape.

— Phill Powell

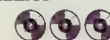
Entertainment Value: Visuals:



Interface:



Audio:



Overall:



Reader's Digest Multimedia Crosswords

Windows \$34.95

InterMedia Philadelphia, PA Phone: (215) 387-0448

To get the best crosswords for your money, pick up your local newspaper instead of this disc. The paper is cheaper, and the crosswords are better.

What makes InterMedia think crosswords will work on CD-ROM? After all, the newspaper is easy to find, portable, and costs less. Convenience will always keep crosswords in the newspaper. Right?

Wrong. CD-ROMs could carry crosswords into a new dimension where pictures, videos, and animation could breathe life into these two-dimensional intellectual puzzles.

Unfortunately, *Multimedia Crosswords*



These puzzles look great – but don't challenge.

doesn't move crosswords beyond the printed page. Sure, pictures and videos are used as clues, but they're often too grainy and too small. But the worst part occurs when pictures, videos, and words combine into one clue. The result is often so confusing that you don't know what word to search for.

If you get past these obstacles, there are more to come. There are only 30 crosswords; you don't know the difficulty

level of each game; and although the puzzles tackle many subjects, the clues are often repeated.

So what saves this disc from being totally worthless? The graphic set-up is easy to read, you can ask the computer to fill in a letter or word for you, and auto check tells you if you're typing in the correct letters. These last two options are great for novices, but they also take away from the spirit, purity, and challenge

of the crossword game.

If you want the real challenge of a crossword, stick with a magazine or your local newspaper.

— Dean H. Renninger



Reunion

DOS \$59.95

Merit Dallas, TX Phone: (214) 385-2353

After 300 years of struggling, the human colony on New Earth is ready to expand. Research in the construction of satellites and mining drones has paid off and more scientific dividends are around the corner. In *Reunion*, you shoulder the responsibility of leading New Earth's expansion, bearing in mind that expansion seldom comes without a fight.

As a computer game, *Reunion* has some good points. It has an interesting, though common, story line, an attractive opening sequence, and extremely pleasant graphics. As a strategy game, *Reunion* contains enough elements to keep most players occupied.

That's where the good news stops. Despite its well-developed story line, *Reunion* is not very compelling. Jumping

between military, commercial, and urban responsibilities is confusing, and the game offers little incentive to keep you interested.

Another problem with *Reunion* is that it works with a limited number of sound cards. Considering the diversity of



Reunion's main screen features the mayor and her advisors.

cards on the market and the fact that their game is published on CD-ROM, the developers at Grandslam Video should have put more effort into making their game universally compatible.

If Grandslam had published *Reunion* in 1992, they would have had a major success. In 1992, science fiction



Once new technologies are developed, this screen explains their function and allows players to order their construction.

games that combined strategy and expansion were popular, and *Reunion* might have been among the best. Today, competing against strategy games like *SimCity 2000*, *Outpost*, *Alien Legacy*, and *Colonization*, *Reunion* will likely go unnoticed.

— Steven L. Kent



Lost & Found, Vols. 1-3

Windows/Mac \$34.99 each

GTE Interactive Media Carlsbad, CA Phone: (800) GTE-TODAY

"We're just trying to sell fun," says Tom Casey, the marketing vice president of GTE Interactive Media. Fun is what kids will find in *Lost & Found*, three new CD-ROMs in GTE IM's line of "Interactive Toys."

All three *Lost & Found* volumes are similar "find the object in the picture" games that should appeal strongly to fans of the *Where's Waldo?* books. Conceptually, there's nothing difficult about them. Each disc contains 12 vividly photographed scenes containing dozens of artfully arranged objects (large and small), grouped together by a theme such as flight or cooking or tools or birthdays. Kids select an appealing scene and find eight hidden objects, following spoken clues in the form of riddles.

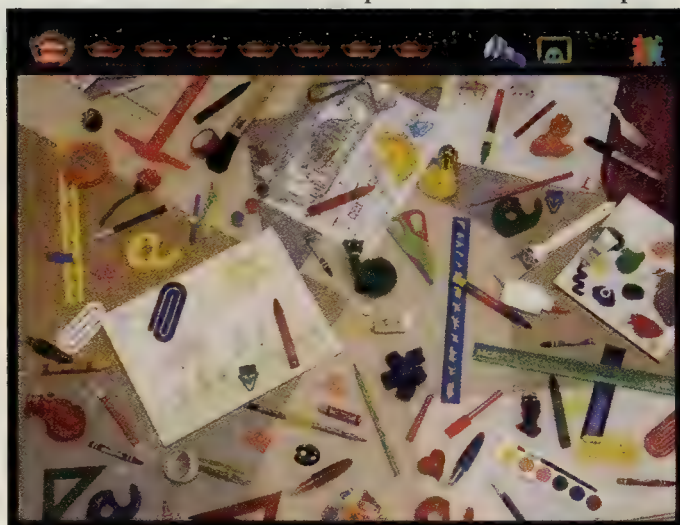
What's hard is picking the right object from a host of similar ones, even for an adult. Clicking on the wrong object elicits an encouraging "Almost!" in a kid's voice; clicking on the right one earns an enthusiastic phrase such as "Way to go!" Solve all eight riddles and kids "own" that puzzle; solve all 12 puzzles, and they can play again with different riddles.

Lost & Found has one of the

cleanest interfaces I've seen in a children's game. Icons are logically designed and work just the way you'd expect. All instructions are given by voice; no reading is required. Two neat tools aid frustrated searchers: a flashlight illuminates the area of the scene where the object can be found, and a magnifying frame can be moved over the scene to reveal hard-to-see details. The magni-

intro themes when opening a scene), and the programs quit instantly, without hanging around and asking if the player really wants to.

My testing team (two 9-year-old girls) declared that *Lost & Found, Volume 1* was "totally cool," though they thought the little blonde kid who introduces the puzzles in short video clips



Players are given riddle clues to help them find eight objects in the scene.



Each puzzle piece in the *Lost & Found* main screen hides a find-it puzzle.

fier was most impressive; it moved in real time and actually revealed more detail than in the unmagnified scene. (You'll need to have more than 4MB RAM to run it.) A couple of additional interface touches I appreciated: there's no background music (except for short

was too young for the difficulty level. After playing together for about an hour (and only agreeing to get off the PC when they were threatened with having to do yardwork), they gave the disc two thumbs up.

What I liked about the *Lost & Found* games, besides their flawless execution, was that they didn't try too hard to teach something. The fun in playing them is derived entirely from solving riddles,

exercising shape-recognition skills, and locating the treasure. All in all, the *Lost & Found* discs are nearly perfect pastimes for sharp-eyed, quick-witted kids.

— Steven Anzovin



Can't find what you're looking for? Use the flashlight to illuminate the right area.

Entertainment Value:	Visuals:
○○○○○○○○	○○○○○○○○
Interface:	Audio:
○○○○○○○○	○○○○○○○○
Overall:	○○○○○○○○

Dark Sun: Shattered Lands

DOS \$65

SSI Sunnyvale, CA Phone: (408) 737-6800

Dark Sun is the much-needed "reinvention" of SSI's *Advanced Dungeons & Dragons* game system, featuring a vastly improved interface, a new world with new creatures, characters classes, and spells, and a large leap forward in graphics and sound. It was a long time coming, and its delays and cost overrides nearly put SSI in the poorhouse, but this debut title is here to give AD&D fans reason to be happy.

This new world is the ecologically devastated habitat of Athas, where a class of ruthless, power-hungry magicians has drained the earth of its vitality for their enrichment. The result is a vast, desert-planet spotted with small city-states ruled by these evil magicians. Standing against them is an alliance of noble magic-users who only cast environmentally sound spells and seek to topple the "defiler" magicians.



Dark Sun uses an simple point-and-click mouse-based interface. It's one of the first fantasy role-playing titles to break from text-laden game screens so typical of this entertainment category.

This might all sound like a ponderous descent into political correctness, but in reality it's merely the backdrop for a challenging new game world. Escaping from the gladiator's arena, you and your party must cross the desert, fulfilling certain quests and fighting to unify the villages against the tyrants.

The interface reduces all function to a simple mouse-based interface, and uses an effective turn-based engine for combat. There are only a few real puzzles, but there's plenty of character interaction, combat, and new things to discover, making *Dark Sun* a refreshing new twist on familiar AD&D games.

— T. Liam McDonald

Entertainment Value: Visuals:



Interface:



Audio:



Overall:

Our New Title is Proven
to Expand Your Vocabulary:

Ooh! Aah!
Ooh-la-la!



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Reader Rabbit's Interactive Reading Journey

Mac/Windows \$99

The Learning Company Fremont, CA Phone: (800) 852-2255

Parents should know how important it is to get their kids started on reading. To help fill the gaps between preschool story groups and bedtime tales, software companies have published scores of titles that stress word

recognition, phonics, spelling skills, vocabulary building, and story writing. Now, all of these elements come together in a single comprehensive learning program.

Reader Rabbit's Interactive Reading Journey is as engaging as it is ambitious. The potential of interactive technology is fully realized in this title. More than 100 reading-related exercises and games help to build and reinforce a child's store of "sight words," which are an essential component to good reading. The exercises and games are carefully sequenced, so that kids build on previous skills while setting their own pace.

Reading Journey is organized into 20 Letter Lands, each divided into five sections of eight stories each. To move along the path, kids read the two stories associated with each Letter Land; after successfully completing a section, a gate allows entry into the next Letter Land.

Parents can set a completion rate to monitor their child's progress. For example, 80 percent (the default rate) means that the child must answer 80 percent of the word-game questions correctly in order to move to the next Letter Land. Parents can adjust the scale from 100 percent to 0 percent.

If kids have trouble with certain words, but manage to pass the progress report, those words that gave them trouble will appear later in the program. With all of these features for tracking progress and ensuring that word groups are learned, it's easy to see how effective *Reading Journey* can be when it comes to teaching basic reading skills.

The learning isn't all progress reports and storybooks, however. The word games are fun to play and will keep kids entertained even as they begin to add to their basic vocabulary.

The Journey



Starting with very simple stories, young children are encouraged to read along with the journey from start to finish.



Stories become more sophisticated, with new words and longer sentences.



Toward the end of the reading journey, sentences make logical connections.

Games Along the Way



Word games help kids build a store of words, as well as skills for recognizing those words in stories.



After learning to recognize words, kids play games that help them with logical constructions, such as competing sentences with the right word.

The game's artistic design and simple interface also merit attention. All of the stories and games take place in an animated world populated by Sam the Lion, Reader Rabbit, Mat the Mouse, and other engaging cartoon characters. At each Letter Land screen, kids can launch hidden animated bits by clicking on the screen.

Even children as young as four can use the program without supervision — although parents will want to be nearby to share in the fun and progress. The 40 electronic storybooks that support the program are reprinted as small booklets and included with the package. This lets kids practice their reading away from the computer screen.

Available in stores for about the same price as a couple of video games, *Reading Journey* may be the most valuable software you ever install on your computer.

— Peter Scisco

Learning Value:	Visuals:
○○○○○○○○	○○○○○○○○
Interface:	Audio:
○○○○○○○○	○○○○○○○○
Overall:	○○○○○○○○

The Vitsie Titles

Vitsie Visits the Ocean

Vitsie Visits Space

Vitsie Visits Dinosaurs

Windows/Mac \$34.99 each

GTE Interactive Media Carlsbad, CA Phone: (800) GTE-TODAY

Move over, Barney. Back to the pen, Lamb Chop. Pee Wee, you're ancient history. Here comes Vitsie, the first kid-oriented entertainment personality on CD-ROM that has a chance of hitting it big with that all-important

entertainment division of telco giant GTE, which publishes these discs for kids ages 3-6.

So who is Vitsie, you ask? She's not shy, that's certain. "Hi, I'm Vitsie!" she says. "Vitsie Video Sitter! And I'm fine,

thank you!" Parents not immediately put off will discover that Vitsie is a cross between Cyndi Lauper, Shirley Temple, and a kindergarten teacher with super powers. She knows everything, goes everywhere, and likes to take kids along on her adventures. Along the way she sings, dances, and shows her little charges some cool things to do.

On these three discs Vitsie ventures into the oceans to swim

alongside whales, dolphins, and seals; blasts into the sky to visit the solar system; and travels back in time to play with dinosaurs. Lots of video and animation help Vitsie explain things. In fact, Vitsie sings and jokes her way through an amazing amount of information. For example, on the Oceans disc, she discusses the difference between baleen whales and toothed whales, and outlines the parenting style of sea otters.

The Vitsie interface has the logical simplicity of a Fisher-Price toy. The action occurs a small central "TV screen" area. Flipping the STOP and GO signs starts and stops the program. A filmstrip-like device fast-forwards or

rewinds. Special buttons select songs, activities, or lessons. A mouth opens or closes to adjust the audio, and an exit sign quits.

Adults may be made uncomfortable by the fact that Vitsie (played by a real



Vitsie sings with a chorus of animated whales on Vitsie Visits the Ocean.

actress wearing a big red wig, funny goggles, and a yellow-green android-girl suit) is so obviously a creation of "child-entertainment experts." However, these people appear to know their business. Vitsie is sure to be a hit with the preschool crowd, especially preschool girls, for whom there is practically no software of any kind. My five-year-old has told me more than once that she "loves Vitsie" and asks to play the discs



Heading for Mars in Vitsie Visits Space.

every day. At one point she turned to me and asked, "Is Vitsie really real?" I suspect that's the kind of question that tomorrow's parents will find it increasingly difficult to answer.

— Steven Anzovin



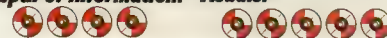
Kids are fascinated by Vitsie's fashion sense.

preschooler audience (all-important, that is, to media companies attempting to cash in on repeat sales to busy parents and doting grandmas). At least, that's the hope of GTE Interactive Media, the

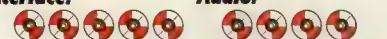


Making fossils is one of the activities for kids on Vitsie Visits Dinosaurs.

Depth of Information: Visuals:



Interface:



Audio:



Overall: 5 out of 5 stars

Tools and Gadgets: Adventures with Oslo

Windows/Mac \$59.95

Science for Kids Lewisville, NC Phone: (800) SCIENCE

Tools and Gadgets has everything I like in an educational CD-ROM: a unified theme, great animation, and an engagement of the child, asking him or



On the DISC!

Kids will love clicking through our fully-functional demo for Windows.

her to solve problems rather than passively presenting information. It's hosted by a unique character named Oslo. Oslo is a...well, he's a...heck, I don't know what he is. Take a look for yourself. Whatever he is, Oslo hosts a very interesting and educational disc targeted to children ages 5-14.



The program host is a, uh...his name is Oslo.

Virtually all the action in this multi-scenario learning playground involves six simple tools: the inclined plane, screw, pulley, wheel and axle, lever, and wedge. There's a section describing the six tools and giving examples of their use. (Did you know that of all these tools, only one has a known inventor? You'll find out who invented the screw, and when, on this disc.) Here's a look at several of the key areas found in *Tools and*

Gadgets: Adventures with Oslo.

Dolly's Dilemma is a fanciful tale about an accident-prone purple llama who requires the assistance of a young boy, Jimmy, and his knowledge of the tools to rescue her from a set of predicaments. The animation in the story is minimal, but the interface is unique and must be seen to be appreciated. As the story unfolds, the black-and-white outline drawings leap to colorful life. The line drawings can be imported into the drawing program (described later) for children to color. In the course of telling the tale, you're asked to locate various

tools hidden in a picture. Jimmy then uses one of them to help Dolly out of her fix.

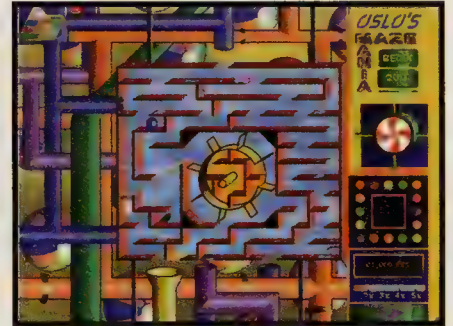
My favorite section of the program is Oslo's Maze Mania. Use right and left arrow keys to guide a ball through five mazes, each of which requires one of the six tools. The object is to finish the maze in a timely fashion, and to use the tool in a particular way to achieve bonus points. It's colorful, clever, and



Learn about the world of levers on one of Oslo's "hot" screens.

challenging — in short, a perfect way to teach without seeming to do so.

Also included is an adventure game. Unfortunately, you can't say much about this without giving too much away.



Like mazes? Oslo's Maze Mania is one you've got to try — think mechanically!

Suffice it to say that it includes some terrific puzzles. Finally, there's a bit of fun in a drawing area where children can sketch and color whatever they please. (It's the only area of the package that has nothing to do with tools.) The game is designed nicely, and should appeal to youngsters.

Interactive elements abound on the disc. Some are just for fun; others illustrate various facets of the tools. The artwork, animation, and sound are



Dolly's Dilemma asks young players to find the tools — as the story develops, color and animation leap to life.

all excellent. This is a great disc for teaching children logic and a variety of basic scientific principles. I heartily recommend it.

— Jeffrey Robinson

Learning Value:



Visuals:



Interface:



Audio:



Overall: 

Harry and the Haunted House

Windows/Mac

\$40

Living Books Novato, CA Phone: (800) 521-6263

OK, I can't hide it anymore. I'm addicted to Living Books. Yes, the box is labeled for ages 3-8, but I just can't resist.

This disc, the latest in the charming series, opens with Harry and his pals



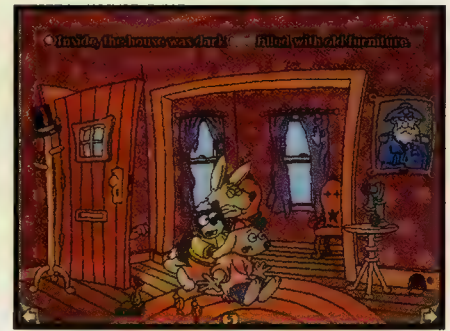
Harry and his friends never know what kind of monster will be lurking around the next corner.

playing baseball. When Harry accidentally hits one of Earl the Rabbit's curve balls through the window of a spooky house, Mark Schlichting's gang of cartoon critters embarks on an unexpected adventure to find the lost ball.

Harry and the Haunted House fits nicely into the Living Books template, with a cast of friendly characters and several pages' worth of illustrations. The narrative is a bit longer and more advanced than in previous books, but that's fine since you can almost always read along with the speaker. If you want to hear a word pronounced again, simply click on that place in the sentence to hear it read aloud.

You can navigate the program in a variety of ways — by having the story read to you, by turning the pages yourself, or by choosing pages in whatever order you like. The last option is nice for revisiting your favorite scenes.

The *best* part about Harry, though, as well as all Living Books, is the hot spots. I've spent hours tweaking every



Harry and his friends are a bit apprehensive, but I couldn't wait to get inside the "haunted" house and find the spooky hot spots.

last bug, flower, and doorknob to find each one, and loved every last joke, jig, and jingle. *Harry and the Haunted House* is guaranteed to please both kids and parents. I wish all of my childhood favorites could be made into Living Books.

— Anne L. Tucker

Learning Value:	Visuals:
Interface:	Audio:
Overall:	

Around the World in 80 Days

Windows/Mac

\$49.95

Electronic Arts San Mateo, CA Phone: (800) KID-XPRT

The Paintbox Pals are back, giggling and waving to attract your attention and help you during a round-the-world trip. The animated quartet made their last appearance in the well-received CD-ROM *Peter Pan: A Story Painting Adventure*. This program is better developed technically, and yet retains the features that proved so attractive the first time around: a considerable degree of interactivity, wit, and clear presentation.

Phineas Fogg, who bears a striking resemblance to the late actor David Niven, challenges his rival Hogsbreath to a race around the world in 80 days. Fogg is accompanied by a monkey named Sidekick.

The pair is constantly tumbling into sticky situations — a bicycle for two is crushed by a concrete block falling out of the Venetian sky, a fly enjoys Fogg's Parisian soup, and their transport nose-dives into the Saharan desert.

My daughter, though older than the targeted age range of 5-8 for this program,



Balloon fly-overs of cities look good, even in VGA graphics.

chuckled throughout the game. The relative simplicity of the VGA graphics did not deter her. She loved the balloon fly-overs of cities such as Venice, Madrid, and Los Angeles, whose skylines and streetscapes are recreated digitally. She appreciated

the dry humor. Best of all, the paintbox pals give her choices. She becomes the navigator, picking the countries to visit and experimenting with her four helpers to construct a story.

The interface is easy for young ones. You can enter the game anywhere during the voyage. Hot spots open up more information and explain the meaning of foreign phrases. Maps pinpoint your location. All text is narrated, so even non-readers can play, though some game instructions are printed text only. Games can be saved for later play.

Around the World in 80 Days is a charming and enjoyable introduction to countries of the world for young players.

— Anne Gregor

Learning Value:	Visuals:
Interface:	Audio:
Overall:	

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Issue Date: January 1995 Expiration Date: February 28, 1995

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Multimedia Upgrade Kit	09 <input type="checkbox"/>	10 <input type="checkbox"/>
Sound Board	11 <input type="checkbox"/>	12 <input type="checkbox"/>
TV/Video Board	13 <input type="checkbox"/>	14 <input type="checkbox"/>
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Music Software	31 <input type="checkbox"/>	32 <input type="checkbox"/>
Multimedia Presentation Software	33 <input type="checkbox"/>	34 <input type="checkbox"/>
Multimedia Applications Software	35 <input type="checkbox"/>	36 <input type="checkbox"/>

B. What is your time frame for buying multimedia products?
37 ☐ Immediately 38 ☐ Within 3 months 39 ☐ Within 12 months

C. Where do you use (or plan to use) your multimedia system?
(Check all that apply.)
40 ☐ Home 41 ☐ Work 42 ☐ School

D. From which sources have you purchased PC products in the last 12 months? (Check all that apply.)
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Bioteach For Kids

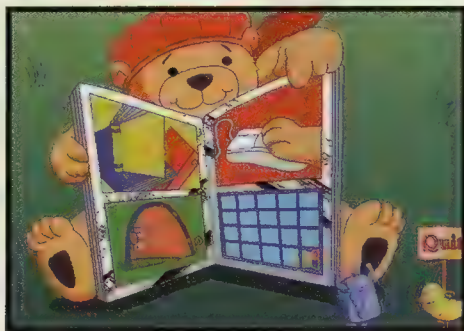
AnnaTommy & What Is a Bellybutton?

Windows/Mac around \$35

IVI Publishing Minneapolis, MN Phone: (800) 432-1332

These recent medical titles from IVI focus on teaching kids about the human body. *What Is a Bellybutton?* is a charming title for young children (ages 3-8) just learning body basics. *AnnaTommy* focuses on older kids (ages 8-10) and teaches anatomy by taking a trip inside the body.

What Is a Bellybutton? is a good, solid program that's set up like a storybook with hot spots and text read aloud. Each page answers a question that most little kids wonder about: "Why do I have to brush my teeth?", "Why does bright light make me squint?", and, "Why can't fathers have babies?" Baxter the Bear answers these questions in a straightforward manner, using language that most young kids can understand. Other characters are also kid-friendly. This story does a nice job of including a diverse group of people. The program features an African-American family, and the main character is Elizabeth, a little girl with a great hairdo. It's good to see a developer use a girl as the focus in a program.



Baxter the Bear is a friendly and helpful guide in *What Is a Bellybutton?*.



***What is a Bellybutton?* addresses tough questions by providing answers that most young kids can understand.**

Unique activities are triggered by clicking on the doorknob found somewhere on each screen. The activities are fun-filled applications of what you've just learned from Baxter. For example, after you learn why you need to brush your teeth, you choose which of Baxter's friends have teeth. This delightful program, full of fun activities, likable characters, and great graphics, is perfect for curious children with endless questions.

On the other hand, *AnnaTommy* is a dull program that will probably bore most kids. You ride along with Anna and Tommy after they're shrunk and put into a ship that's injected into a body (sound familiar?). You travel through ten body systems. Each system has two or three games that must be completed, and you

accumulate points as you play. The animation sequences throughout your journey are nicely done with bright colors and sharp graphics. Narration, alternating between Anna, Tommy, and your on-board com-

puter, adds life to what could be a boring monologue.

Be sure to listen to the narration because it provides the only real information. The games don't include lessons – no matching, Q&A, quizzes, etc. They're pure point-and-shoot, kill-the-bad-guy kind of arcade games. And they aren't even *good* – they certainly won't challenge the Sega-generation. In the pancreas, you kill faulty enzymes and try to avoid hitting good ones. In the testes (that's right, testes) you shoot at cell clusters to form sperm. And in the



Tommy and Anna are the likable captains of your ship as you travel through the body in *AnnaTommy*.

ovaries, you shoot follicles to release eggs. (Amazing that this generic human body has both male and female reproductive organs.)

What's most peculiar is that you must to win all these arcade games. While many kids will have them con-



In this *AnnaTommy* game, you have to kill the bacteria before cavities form.

quered in no time, the games are essentially counter-productive: They limit your freedom. You can't leave your ship and explore areas of interest. These restrictions, along with boring and repetitive gameplay, prevent *AnnaTommy* from being much of an educational or entertaining program.

If you're out shopping for a kids program, pick up *What Is a Bellybutton?*, but leave *AnnaTommy* on the shelf.

— Lisa M. Howie

AnnaTommy	
Learning Value:	Visuals:
○○○○	○○○○
Interface:	Audio:
○○○○	○○○○
Overall:	○○○○
What Is a Bellybutton?	
Learning Value:	Visuals:
○○○○○○	○○○○○○
Interface:	Audio:
○○○○○○	○○○○○○
Overall:	○○○○○○

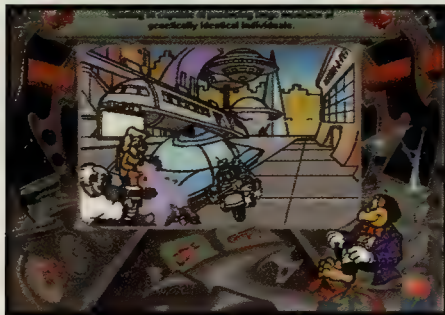
Lenny's World

Lenny's Time Machine & Lenny's Circus

Windows/Mac \$49.95

Paramount Interactive Palo Alto, CA Phone: (415) 812-8200

Paramount's wacky Penguin, Lenny, decided this year to take two disparate journeys. In the ambitious *Lenny's Time Machine* (for ages 6-10), he travels through 15 time zones, spanning more than 600 million years — from the past and into the future — introducing youngsters to scenes as varied as cave-dwellers at home, Philadelphia in 1776, Haight-Ashbury, and the world of tomorrow. *Lenny's Circus* (for ages 5-10) takes the player through a myriad of activities under the Big Top and into an



In *Lenny's Time Machine*, click on the period screen to get an assortment of facts that can prove useful when playing the games.

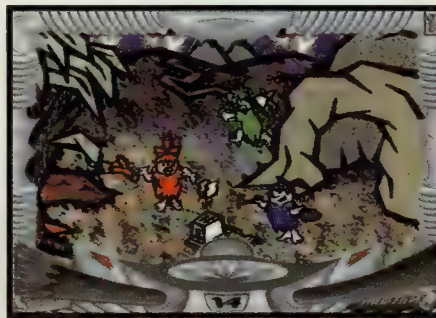
entertaining place called the Fun Zone.

Lenny first appeared in *Lenny's MusicToons*, a CD-ROM popular with small children. This disc includes some nice innovative touches, such as cartoon characters jumping across a screen to make lengthy scene changes entertaining and tolerable.

The designers have continued some of these traditions. However, our small test group is less confident of the cohesiveness of these latest programs. Some elements are very appealing. Others are muddled and silly to the point of annoyance. *Lenny's Time Machine* seems particularly schizophrenic, as if the designers are trying to appeal to as wide a range of audience as possible.

During his travels, Lenny stops at various playgrounds presented as paro-

dies of the historical times that they represent. The graphics are an uneven combination of fluid lines and old-fashioned cartoons — this is a bit jarring. Facts seem jumbled together with no rhyme or reason. Why Sigmund Freud and Albert



Combine painting tools and clip art with audio to make multimedia presentations in *Lenny's Time Machine*.



The souvenir shops convert any *Lenny's Circus* screen into a postcard.

Einstein should be thrown together at a Chicago bar with Al Capone isn't quite clear, and the text details overhead raise more questions than they answer. Younger children will find the statements remote, and older children will find them insufficient.

The game and painting sections are far more satisfactory. Children can choose from scenic backgrounds in each era. All components are lifted from an easel with wheels that turn to offer objects, backgrounds, and creatures for the painting. A diamond-patterned













In *Lenny's Circus*, the fairground fills gradually with colorful tents and vendors as the circus comes to town.

palette sprays colors. Backgrounds are realistic or moody...and creepy if you like. Quotes, sound effects, and music contribute to the multimedia masterpiece, which can be saved or printed — at least the text and graphics segments. Games involving races and assembly projects with various degrees of difficulty will please young school-age children.

Lenny's Circus begins as Lenny travels to the local fairgrounds as the circus moves in. The circus features a Midway, a Big Top with opportunities to play on a trampoline and to calculate angles and distance so that characters flying through the air can be caught by a net. Players can paint clown faces or play the role of band leader, selecting the musicians to play a handful of songs and arranging pitch, tempo, and volume. Both of these programs feature a simulated camera that takes a snapshot of what's on the screen. In *Lenny's Circus* these snapshots are stored at a souvenir stand for later printing as a postcard children can mail — a nice touch.

— Anne Grogan

Lenny's Time Machine			
Learning Value:		Visuals:	
			
Interface:		Audio:	
			
Overall:			
Lenny's Circus			
Learning Value:		Visuals:	
			
Interface:		Audio:	
			
Overall:			

Recess in Greece

Mac/Windows \$34.95

Morgan Interactive San Francisco, CA
Phone: (415) 693-9596

The last time we visited Morgan, he and his ultra-hip friends were matching wits in a trivia game. This time around, everyone's traveled back in time to Ancient Greece. Morgan, playing the part of Odysseus, learns the story of *The Iliad* as he tries to find a way to return to the 20th century. This program for ages 7 to 12 is a good introduction to mythology, geography, and the arts.

Games test kids on what they've learned on Greek history throughout the story. These Greek-themed games are well-designed with bright colors and sharp graphics. "Olympian Gods" has kids identify the Greek gods, and "Map It Out" has them identify various Ancient Greek cities and monuments. "Poseidon's Sea Quiz" and "Ariadne's

Labyrinth Quiz" are a bit more difficult, and require kids to answer questions before Morgan can continue in the story. "Magic Square" is a math and



Odysseus, played by Morgan, hosts a "dating game" to help Helen choose a suitable husband.

logic game that was actually played by ancient Greeks. Kids place rocks numbered one through nine in a square that has three holes horizontally, vertically, and diagonally. The numbers on the rocks have to add up to 15 in every direction.

Narration and hot spots explain Homer's epic in an kid-friendly way. Athena, the goddess of wisdom, is avail-



Kids build modern-day words using Greek prefixes and suffixes in one of Recess in Greece's enjoyable and educational games.

able on every screen to give brief history lessons on things such as Pandora's Box, the Parthenon, Greek food, and clothing. This combination of an old story told with a new interactive twist makes *Recess in Greece* a winner.

— Lisa M. Howie

Learning Value:	Visuals:
○○○○○	○○○○○
Interface:	Audio:
○○○○○	○○○○○
Overall: ○○○○○	

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Minimum requirements:
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intermedia

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happens

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Mario's Time Machine Deluxe

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Mindscape Novato, CA Phone: (415) 883-3000

Deluxe: of special fineness; high in quality, luxury.... A lot of things spring to mind as you play *Mario's Time Machine*, but "deluxe" ain't one of 'em.

This Carmen Sandiego knockoff was designed for the video cartridge market, where its streamlined action and arcade sequences made sense. Translated to CD-ROM, it's just a mess.

Mario's nemesis Bowser has used a time machine to steal 24 objects from historical figures — Cleopatra's staff, Dickens' inkwell, Michelangelo's chisel, and so on — and installed them in a museum. Mario must collect each item, return it to the proper year and city, talk to people about the famous person (or visit a library), fill in the blanks of a

short essay, then return the artifact to the luminary.

The journey quickly grows tiresome, and the interface doesn't ease the trips. Arcade sequences must be played in a small window to prevent slowdown, but even the normal window doesn't completely fill the screen. You have plenty of save-game slots, and shortcuts get you through faster, but you're a lot more likely to learn trivia rather than grasp the historical significance of each person.

You may recall that "Ludwig" is German for "Louis," even if you can't



Talk to the people in each time period to uncover information that helps you fill the history pages and return each artifact.

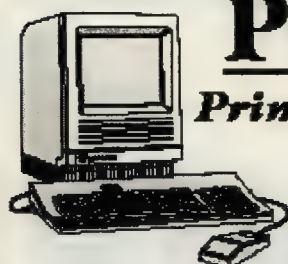


Once you've returned all 24 stolen objects, Bowser briefly appears, dropping a floppy disk that sends you to Mindscape's California headquarters for an end-game sequence.

name any of Beethoven's symphonies. Or you might remember that Michael Faraday discovered benzene rather than electromagnetic induction. But you're most likely to remember not to pull this title from the shelf more than once.

— Leslie Mizell

Learning Value:	Visuals:
○○○	○○○
Interface:	Audio:
○○○	○○○
Overall: ○○○○○	



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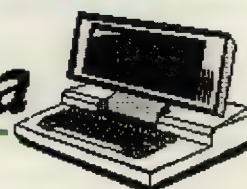


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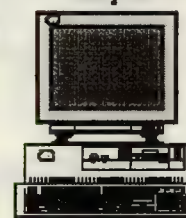


DOS

NT

Windows

MAC
II/III



Amazing Animation

Mac \$59

Claris Santa Clara, CA Phone: (408) 987-7000

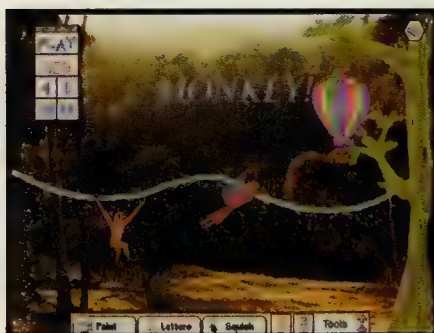
If CD publishers have their way, our children will all grow up to be multimedia experts. Newest in a bumper crop of multimedia authoring software for



On the DISC!

Can monkeys fly? They can if you make the cartoon with our interactive demo!

kids is *Amazing Animation*, from Apple's software arm, Claris. Children 5-14 years



You can make the jungle come alive.

old can use *Amazing Animation* to create their own multimedia movies, cartoon stories, and interactive home and school projects. All they have to do is choose a background scene, stamp a character or object, move the character by dragging the mouse, add a sound, and press the play button to see their work.

For older or more able animators, the program includes some fairly advanced tools. Animation tools (called Squish Tools) allow stamps to be moved, sized, and rotated. (There's no flip tool, however.) There's a storyboard view (called the Frame Gallery) where kids can edit their movies by cutting, copying, and pasting individual frames. They can even add limited interactivity to their creations. Movies can be embedded in other movies by adding branching buttons. Clicking on the button jumps to that movie; when it's finished playing, viewers are returned to the first movie.

Claris has created the CD version of *Amazing Animation* with schools in

mind. The disc includes a Project Workbook with ten projects that children can do in the classroom or at home, as well as extra stamps and

scenes. Each project is intended to integrate with languages arts, math, social studies, and other curricula. Also included are teacher instructions, student worksheets, and sample files.

There are some minor interface annoyances. The toolbar isn't movable, so kids can't put it somewhere else if they don't like its position at the bottom of the screen. There aren't enough controls in the Movie controller. Electronic-age children who can handle 100-button VCR remotes with ease can certainly deal with fast forward, pause, rewind, and looping controls. The movies aren't small, either — the 100-frame movie illustrated in this review occupied 768K. The sound selection is quite extensive, but animators can't browse through them, as kids love to do. Select a sound, and the sound selection window irritatingly disappears before you can hear whether the sound is really the one you want. A preview feature would help.

To balance out these imperfections,

Amazing Animation does offer one excellent feature: adults can set skill levels appropriate to small fries as well as big ones. The Little Kids level disables more advanced features like transitions, the Frame Gallery, and the Squish Tools. *Amazing Animation* is not as easy to learn as Knowledge Adventure's *Magic Theatre* (which runs only on PC-compatibles), nor is it as powerful as my all-time favorite 2D animation program,



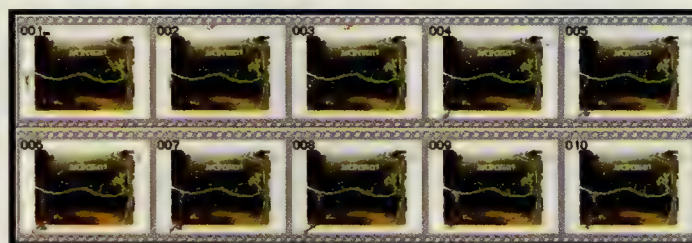
First, select a background...



...then choose an animated stamp, or make your own.



Add graphics with the drawing tools...



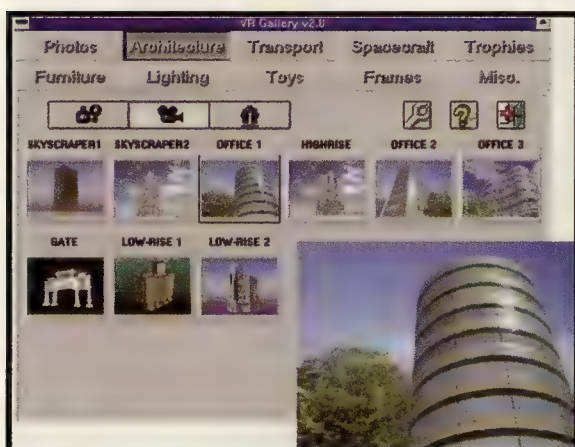
...finally, edit the movie by arranging frames in the Frame Gallery.

Electronic Arts' *Deluxe Paint* (for PCs and the now-defunct Amiga). But it does have many clever tools that will help Mac-savvy kids break into multimedia and have fun doing it.

—Steven Anzovin

Interface:	Ease of Use:
Performance:	Range of Features:
Overall:	

This CD-ROM is three products in one: a DOS-based 3-D modeling/animation program, a suite of 3-D product demos, and a collection of 3-D "clip art." You can use the clip art, which consists of wireframe models of various objects, in most 3-D model software, such as *Crystal Topas*, *Virtus Walkthrough*, or *Caligari trueSpace*. The wireframe



Gallery is a showcase of 3-D "clipart".

objects are grouped in various categories such as architecture, transport, spacecraft, trophies, furniture, lighting toys, frames, and miscellaneous. You can also view these 3-D objects in a gallery, even view them rotating in 3-D space. You can also export the pictures as .BMP graphics for use in conventional DTP software and paint programs.

If you don't yet have a 3-D program, you can import the wireframes with any of several limited-use demos. You get fully functional, but disabled versions of the following powerful 3-D programs: *Caligari trueSpace*, *MacroMedia MacroModel*, *Pixar Typestry*, *Strata StudioPro* PC, *Visual Software's Visual Reality*, and *VistaPro* by Virtual Reality Laboratories. Although not truly 3-D design software, but of a similar vein, you also get demos of *Distant Suns* and *Mars Explorer* (both from Virtual Reality Laboratories). There are slideshow demonstrations of *3D Workshop*, *Crystal-Graphics (Flying Fonts, 3D Designer, Topas)*, and *Virtus Walkthrough*.

In addition to demos, you get a complete version of Media Synergy's own 3-D software, *VR Composer*. Like

some of the other demos, *VR Composer* is DOS-based and works best when not run from Windows. For those accustomed to slick Windows interfaces, *VR Composer's* interface is sparse, although it includes 3-D modeling, texture-mapping, rendering, and animation. Although it's DOS-only, the manual is a Windows Help file.

If you're trying to learn more about 3-D, and trying to evaluate available software, you may get some value from *VR Workshop*. The package includes coupons for significant discounts off the pur-

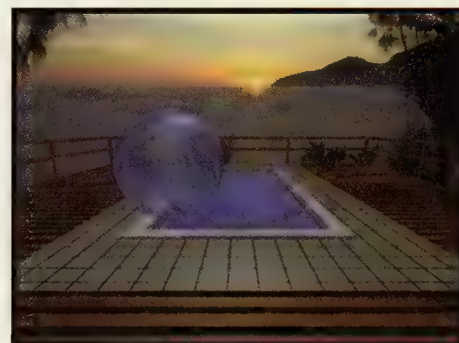
chase price of the full versions of the demo software, if you order from Media Synergy. However, DOS graphics packages are passé — it's hard to get excited about *VR Composer*. If you do use 3-D software, you may appreciate the time-saving value of the sample 3-D wireframe objects. Yet this disc is mostly an interactive advertisement for the 3-D product line of Media Synergy. Virtual reality? It takes a lot more than 3-D graphics to justify that claim.

— Charles Brannon

VR Workshop

DOS/Windows \$59.95

Media Synergy Toronto, Ontario Phone: (800) 793-6320



A sample 3-D animation

Interface:	Ease of Use:
○○○	○○○
Performance:	Range of Features:
○○○	○○○
Overall: ○○○○	

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The WallZapper is a fun and imaginative feature. It changes your wallpaper to any image saved in any standard graphic format. *The Complete After Dark*

includes the new control panel from *After Dark 3.0*, which previews and selects the screen saver. It's easy to use, logically organized, and includes a password-protection function. The EcoLogic power-manager software, accessed through the control panel, will turn off your monitor or computer after a preset period to save energy and money. EcoLogic requires a monitor compliant with the Energy Star energy efficient requirements. (Most contemporary monitors have this feature.) EcoLogic also provides an estimate of how much money you're saving.

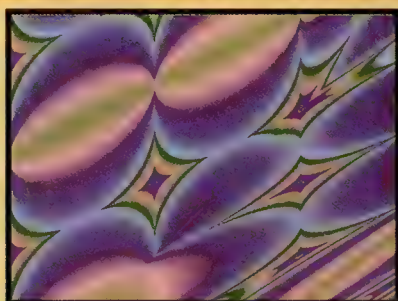
The Complete After Dark contains more than 80 screen savers, including all previously released modules. You'll find Fish Pro, Bugs, and the Disney modules. (I couldn't live without my Goofy fix every couple of weeks.) And of course, the flying toasters are here, with a new twist – karaoke. You can sing the Flying Toaster anthem, "On Mighty Toaster Wings," featuring Flap Master "T" and the Toastettes. Some people will find this cute, others a bit silly.

New modules like Bad Dog, You Bet Your Head, and Rat Race, originally found on *After Dark 3.0*, are also included. Bad Dog is a pesky mutt that terrorizes your screen, chewing holes in your wallpaper, ripping out wiring, and moving windows. You Bet Your Head is a typical trivia-quiz game, with an amusing feature – choose the wrong answer, and get bopped on the head. Rat Race pits three erratic rodents against each other in a dash to the finish line.

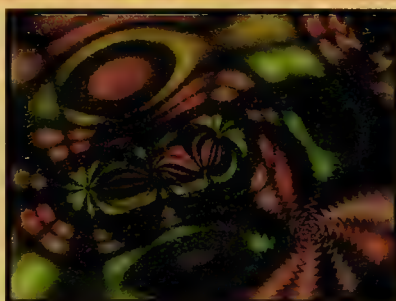
Most of the modules are looking better than ever, with crisp images, animation, and beautiful colors. Satori is probably my favorite module, with its shimmering and swirling colors. But it's hard to pick just one. *The Complete After Dark* has so many choices, you're sure to find plenty of ways to express yourself.

– Lisa M. Howie

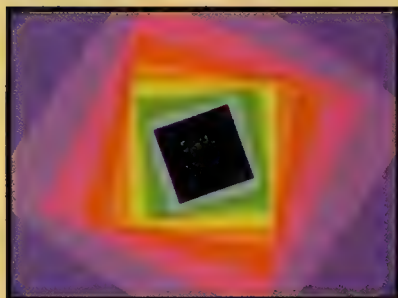
After Dark – Screens That Never Sleep



Nirvana



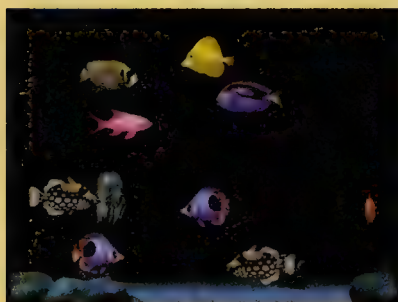
Satori



Zoommmm!



Rat Race



Fish Pro



Bugs

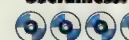
Variety of Content:



Interface:



Usefulness:



Overall:

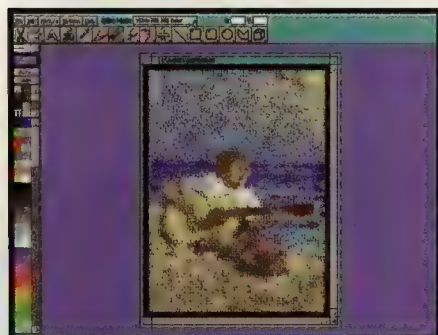
Print & Paint Power CD Collection

DOS \$29.95

Hi Tech Entertainment New York, NY Phone: (212) 941-1224

In the DOS shareware world, it's hard to beat NeoPaint. Add a thousand T/Maker clip-art images and a reasonably useful program to create cards, signs, and banners, and you've got a DOS CD-ROM bargain titled *Print & Paint Power CD Collection*.

For this disc, NeoPaint (a fully registered version) has been renamed to PaintPower. It has all the standard fea-



At 1024 x 768, PaintPower gives you plenty of room to work. This example shows how you can import a photo and colorize it with the painting tools.

tures of a basic paint program and much more. It works flawlessly at screen resolutions up to 1024 x 768 x 256, and allows simultaneous editing of multiple images in PCX, GIF, TIF, and ST file formats (no support for BMP, however).

PaintPower features color, line, and pattern palettes to the left, with drop-down menus, a toolbar, video-resolution selector, and mouse-position indicator above. The toolbar includes scissors, eraser, text, zoom, color sampler, highlighter, brush, fill, airbrush, stamps, lines, rectangles, rounded rectangles, circles, editable polygons, and even three-dimensional objects.

Notable among the tools are the color sampler (grab a color from the picture rather than the palette);

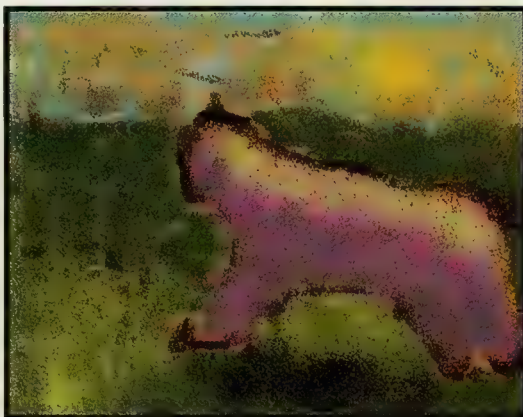
the highlighter (add color to existing colors); a swap fill (swap every occurrence of one color with another); and stamps (place "rubber stamp" images).

Picture enhancements include inverting, flipping, rotating 90 degrees, plus scaling and adjusting the contrast and palette. Other nifty effects let you smudge, blur, streak, fade, pixellate, and otherwise alter a graphic. An Undo feature is included.

PaintPower directly supports Epson/IBM, HP DeskJet, HP LaserJet II, and Postscript printers, and provides a dozen useful fonts in several sizes.

PaintPower's companion, PrintPower Pro Plus, lets you create signs, folded cards, banners, and calendars. (It's also useful for keeping a simple mailing list.) The program offers a number of standard sizes for each type of document.

PrintPower isn't as intuitive as it could be. It's a nice idea, but not

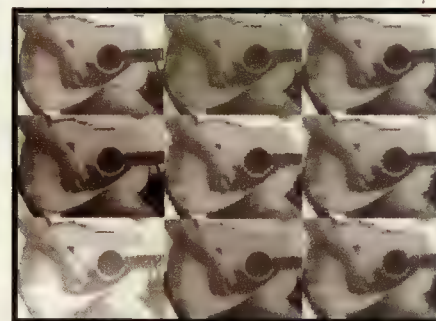


Children will love airbrush painting with PaintPower.

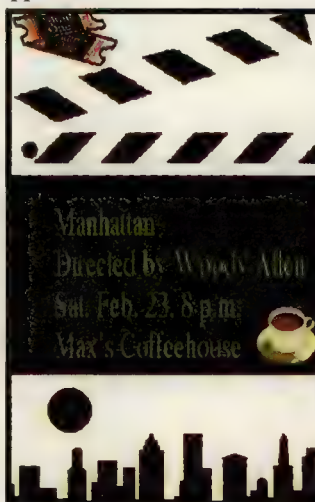
the reason to buy this CD-ROM.

PrintPower supports ten common varieties of dot-matrix, ink-jet, and laser printers, but generated a faulty printout on the LaserJet, and seemed flaky in general.

The variety and quality of clip-art images make this disc worth having — they range in quality from good to excel-



PaintPower provides plenty of effects: (across then down) original photo, screen, lattice, dark, pixellate, streak, fade, blur, and smudge.



T/Maker clip art can add a professional touch to your work. This ticket uses four clip-art images.

lent. And they're available in bitmap and metafile formats.

The collection's categories include: accents, arts, food, frames, home, maps, nature, office, scenes, school, seasons, signs, sports, and transportation. This is a nice sampling, and the print manual helps with locating and visualizing the images.

Print & Paint Power CD Collection is effortless when it comes to accessing any of the various elements of the disc, including an online instruction manual and clip-art browser. There's

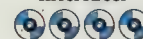
also an undocumented subdirectory on the disc containing two decent arcade games. All the elements on this disc are not perfect, but NeoPaint and the clip-art alone make it a good value, especially for die-hard DOS devotees.

— Blake Lambert

Variety of Content:



Interface:



Usefulness:



Overall:

LaunchPad

Mac/Windows \$49.95

Berkeley Systems Berkeley, CA
Phone: (510) 540-5535

They put quarters in the slot to your floppy drive and load your CD-ROMs upside down. They dribble melting popsicles on your keyboard and smear peanut butter on your screen. They trash your hard drive and cost you a month of work. They're your kids, and they may be the biggest threat to your computing peace of mind.

Berkeley Systems, the After Dark people, has come up with a solution that will help keep your stomach from twisting into knots when your children ask to "play on the computer." *LaunchPad* is a system-level utility that creates a kid-friendly interface while locking out any files or programs you don't want to be accessed.

Little kids will want to ride along



LaunchPad is a charming interface for kids that offers a side benefit: peace of mind for adults.

with Bingo the dog as he takes them to six animated worlds: the dinosaur age, a scary tower, a medieval castle (complete with unicorn), underwater, outer space, and an After Dark screen saver theater. Older children can open parent-approved applications and work with their own files, without having access to yours. When the kids are done (or you can't stand being away from the machine any longer), just type in your password and *LaunchPad* puts itself away.

The only problem I had with this otherwise well-done application is that it loaded itself on startup but kept asking for a floppy disk to be inserted. Panicked clicking got past the problem, but it is something Berkeley Systems ought to look at. That aside, if

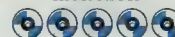
you have kids of your own, or teach them, you need *LaunchPad*. If only it included a keyboard cover to keep out the apple juice.

—Steven Anzovin

Variety of Content:



Interface:



Usefulness:



Overall: 

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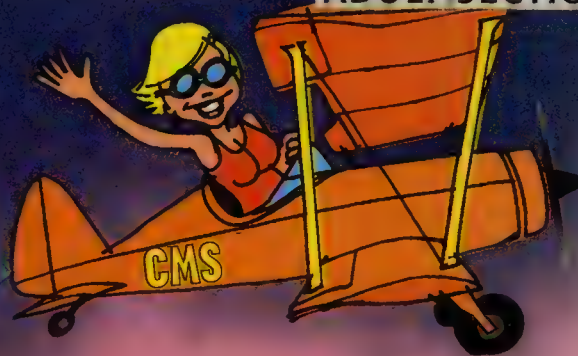
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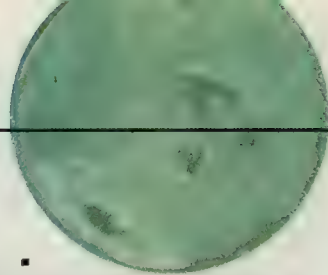
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QuickTime VR: A New Worldview



If there's one thing Apple is famous for, it's whiz-bang technology. Apple has pioneered an impressive series of innovations

over the past two decades, and the

Macintosh still reigns as the most influential personal computer ever made. The latest breakthrough to emerge from Apple's Advanced Technology Group in Cupertino is a virtual-reality imaging system called QuickTime VR.

QuickTime VR puts a 360-degree photographic panorama into a screen window that you can view without special equipment. Unlike a QuickTime movie, it's not a linear video clip that has a start and a finish; it's a fully interactive image in which you can pan left or right in complete circles by clicking

included the unusual screen shot on this page to give you a rough idea of what it looks like. The picture is from the first CD-ROM to use the technology, *Star Trek Interactive Technical Manual* (Simon & Schuster Interactive). It was released in November for both the Macintosh and Windows and is reviewed on page 80 in this issue.

The picture shows the bridge of the starship Enterprise with the captain's chair at the center of the image. It's a little misleading, however. First, it's only the QuickTime VR window — not the entire screen, which normally includes other elements. Second, it shows the whole 360-degree panorama as a finite strip, while the actual window contains only a portion of the panorama that you can scroll continuously left or right. (To get a better idea of what you'll see, you'd have to cut out the picture, tape the ends together, and stick your head inside the loop.)

Also, the picture exhibits an optical distortion that does not appear in a real QuickTime VR window. This curvilinear distortion resembles the effect of a fisheye wide-angle lens and is automatically corrected by the QuickTime VR software. What you'll really see is a rectilinear image in which straight lines



the mouse. You can also scroll up or down, zoom in to higher magnifications, exit one panorama to enter another, and even examine certain predefined objects within a scene from any viewing angle.

Nothing quite like QuickTime VR has ever existed before. It's truly a new form of photographic imaging. Although I've seen some theater-in-the-round experiments that approximate QuickTime VR, they were not interactive and offered no provision for linking multiple panoramas or picking up objects. In my opinion, QuickTime VR ranks with the inventions of color photography, motion-picture photography, and stereo photography.

Because QuickTime VR is so difficult to describe, I've

remain straight. And when you zoom to higher magnifications, QuickTime VR automatically applies anti-aliasing to smooth out jagged pixels.

Perhaps the greatest achievement of QuickTime VR is that it assembles a seamless panorama from a series of ordinary still photographs. Other virtual-reality technologies create a fake world of computer-generated images. QuickTime VR can combine rendered images with photographs, but relies on photography to present a world that more closely mirrors reality.

The Star Trek CD-ROM only begins to explore what's possible with QuickTime VR. There's much more to come, and it's the most fascinating new technology I've seen in years. ©

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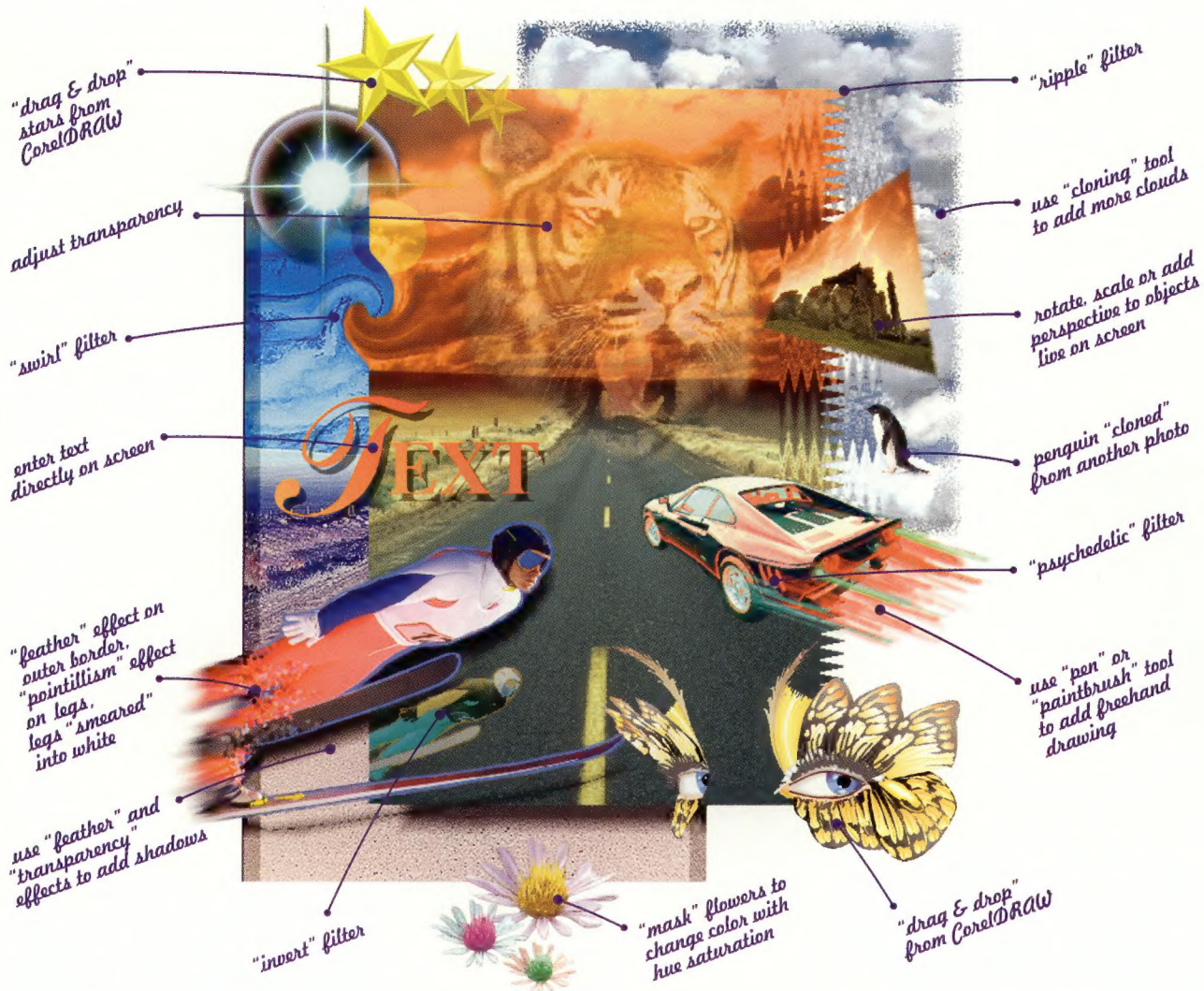
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